DEFENSE INFORMATION SYSTEMS AGENCY
JOINT INTEROPERABILITY TEST COMMAND
2001 BRAINARD ROAD
FORT HUACHUCA, ARIZONA 85613-7051

IN REPLY
REFER TO Networks, Transmission and
Integration Division (JTE)

14 Nov 03

MEMORANDUM FOR DISTRIBUTION

SUBJECT: MIL-STD-188-183 Conformance Certification of the AN/PSC-5C Shadowfire Manpack Radio (Certification 351.258)

References:

(a) DOD Directive 4630.5, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 11 Jan 2002

(b) CJCSI 6212.01B, "Interoperability and Supportability of National Security Systems, and Information Technology Systems," 8 May 2000

1. References (a) and (b) establish the Defense Information Systems Agency (DISA), Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification. Additional references are provided in enclosure 1.

2. Military standard (MIL-STD)-188-183 conformance testing has been completed for the AN/PSC-5C Shadowfire Manpack Radio. The terminal is certified as meeting the applicable requirements of MIL-STD-188-183 (reference (c)) to the extent detailed in the Conformance Certification Testing Summary (enclosure 2). The tested terminal components and associated software versions were:

AN/PSC-5C Shadowfire	RT-1672C(C)/U
Control Processor Software (CP-SW)	CTRL 02.78
Control Processor Hardware (CP-VHDL)	CPHW 02.10
Modem Orderwire Encryption Board (Modem OEB)	MOEB 02.00
Modem Digital Signal Processor (Modem DSP)	MDSP 05.19
Modem	Version 14.00
Shadowfire Baseband Processor Software (BP-SFIRE)	BPSW 08.13
SINCGARS Baseband Processor Software (BP-SGARS)	BPSW 08.13
Baseband Processor Hardware (BP-VHDL)	BPHW 02.40
Baseband Processor Hardware (BP-HW)	*BPHW xx.xx
Fill Processor Software (FP-SW)	FPSW 05.05
Fill Processor Hardware (FP-VHDL)	FPHW 02.40

JITC Memo, Networks, Transmission and Integration Division (JTE), MIL-STD-188-183 Conformance Certification of the AN/PSC-5C Shadowfire Manpack Radio (Certification 351.258)

ANDVT Processor Software (AP-SW) ..... APSW 08.19
ANDVT Processor Hardware (AP-VHDL) ..... APHW 06.90
ANDVT Processor Hardware (AP-HW) ..... *APHW xx.xx
TCP/IP Processor Software (TP-SW) ..... TPSW 06.07

* - Raytheon hardware manufacturing uses these version numbers to track revisions on manufacturing parts lists. These version numbers will vary in fielded radios and have no effect on the installed software.

3. Testing was conducted at JITC Ultra High Frequency (UHF) Satellite Communications (SATCOM) test facility using the JITC procedures, contained in "MIL-STD-188-183/MIL-STD-188-183A Conformance Test Procedure," 09 January 2002. A summary of the test results is provided in enclosure 2.

4. In accordance with reference (d), users are required to have terminals certified compliant to MIL-STD-188-181, -182, and -183. Engineering Change Proposal (ECP) 32 is a hardware and software modification to the AN/PSC-5 Spitfire Manpack Radio designed to provide a field upgrade resulting in the AN/PSC-5C Shadowfire Manpack Radio. ECP 32 uses a module replacement that provides additional data rates for MIL-STD-188-181B and Mixed Excitation Linear Prediction techniques. In addition, the upgrade includes improved narrowband voice vocoder, embedded Automatic Data Controller, embedded Internet Protocol layer, and numerous other enhancements. The additional enhancements include HAVE QUICK and SINCGARS frequency hopping, the addition of higher data rates in Line-of-Sight mode, and operator menu enhancements. Sufficient testing was performed to ensure that the Shadowfire was in compliance to MIL-STD-188-183. This certification memorandum declares that the MIL-STD-188-183 portion of the overall Joint Chiefs of Staff mandated requirement has been met for the AN/PSC-5C Shadowfire Manpack Radio.

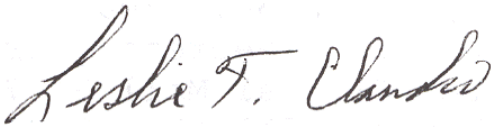
5. Previous testing has demonstrated that even though a product conforms to standards, there is still a potential for incompatibility between UHF terminals that implement technical requirements differently. Therefore, prior to an initial operational capability assessment, terminal users must define the specific terminal operational requirements. Additionally, the terminals must be tested and certified for interoperability by JITC in accordance with reference (b).

6. JITC distributes test documentation via the JITC Electronic Report Distribution system which uses unclassified (NIPRNET) e-mail. More comprehensive information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/.gov users on the NIPRNET at https://stp.fhu.disa.mil. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at http://jit.fhu.disa.mil (NIPRNET) or http://199.208.204.125 (SIPRNET). JITC also provides a DAMA Certification Register on the JITC public website under "Product Registers." The DAMA Certification Register can be

reached directly at http://jitc.fhu.disa.mil/reg/dama1.html. The UHF SATCOM DAMA Test Facility homepage can be reached directly at http://jitc.fhu.disa.mil/reg/uhfdama.htm.

7. The testing agent point of contact is Norma Vega, DSN 879-1741, Commercial (520) 538-1741, e-mail vegan@fhu.disa.mil.

Sincerely,



LESLIE F. CLAUDIO
Chief
Networks, Transmission and
Integration Division

2 Enclosures:
1 Additional References
2 Conformance Certification
Testing Summary

Distribution:
Joint Chiefs of Staff, Director for Command, Control, Communications and Computer Systems (J6), Room 1E833, The Pentagon, Washington, DC 20318-6000
Joint Chiefs of Staff (J6S), ATTN: CDR Brooks, Room IC832, The Pentagon, Washington, DC 20318-6000
Office of the Secretary of Defense, Director Operational Test and Evaluation, Room 3E318, The Pentagon, Washington, DC 20301-1700
Assistant Secretary of Defense (Command, Control, Communications, and Intelligence), ATTN: C3I, The Pentagon, Washington, DC 20301-8000
Defense Information Systems Agency (IN42), ATTN: Andy Pappas, 5600 Columbia Pike, Falls Church, VA 22041-2717
Program Manager's Office, Tactical Radio Communications Systems, Building 456, Fort Monmouth, NJ 07703-5000

ADDITIONAL REFERENCES

(c) MIL-STD-188-183, "Interoperability Standard for 25-kHz UHF TDMA/DAMA Terminal Waveform," 2 December 1996

(d) Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 6251.01A, "Ultrahigh Frequency (UHF) Satellite Communications Demand Assigned Multiple Access Requirements," 21 April 2003

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CONFORMANCE CERTIFICATION TESTING SUMMARY
(Certification 351.258)

1. CERTIFICATION TITLE. MIL-STD-188-183 Conformance Certification of the AN/PSC-5C Shadowfire Manpack Radio.

2. PROPONENT. Tactical Radio Communications Systems
Building 456
Fort Monmouth, NJ 07703-5000

3. PROGRAM MANAGER/USER POC. Mr. Paul Hancik, (732) 532-7300
E-mail: paul.hancik@c3smail.monmouth.army.mil

4. TESTERS. JITC - Mr. Larry Metz, (520) 538-5215
Mr. Raymond Hopkins, (520) 538-4275
Ms. Norma Vega, (520) 538-1741

5. SYSTEM DESCRIPTION. The AN/PSC-5C Shadowfire Manpack Terminal is an Ultra High Frequency (UHF) Satellite Communications (SATCOM) terminal capable of both dedicated and Demand Assigned Multiple Access (DAMA) modes of operation. The terminal provides internal Transmission Security (TRANSEC) for orderwire encryption in the DAMA mode, and embedded Communications Security (COMSEC) for user communications encryption in all modes. Engineering Change Proposal (ECP) 32 is a hardware and software modification to the AN/PSC-5 Spitfire Manpack Radio designed to provide a field upgrade resulting in the AN/PSC-5C Shadowfire Manpack Radio. ECP 32 uses a module replacement that provides additional data rates for MIL-STD-188-181B and Mixed Excitation Linear Prediction (MELP) techniques. In addition, the upgrade includes improved narrowband voice vocoder, embedded Automatic Data Controlle, embedded Internet Protocol layer, and numerous other enhancements. The additional enhancements include HAVE QUICK and SINCGARS frequency hopping, the addition of higher data rates in Line-of-Sight mode, and operator menu enhancements.

6. TEST NETWORK DESCRIPTION. The test networks varied for each MIL-STD requirement being verified. Testers used various configurations with a Navy 25-kHz DAMA Semi-Automatic Controller (SAC), DAMA Orderwire Processor (DOP), and commercial-off-the-shelf test equipment to verify each MIL-STD requirement. Detailed test configurations and data collection information are in the appropriate sections of the JITC test procedure, “MIL-STD-188-183/MIL-STD-188-183A Conformance Test Procedure,” 9 January 2002. Figure 1 shows the system configuration of the tested terminal.

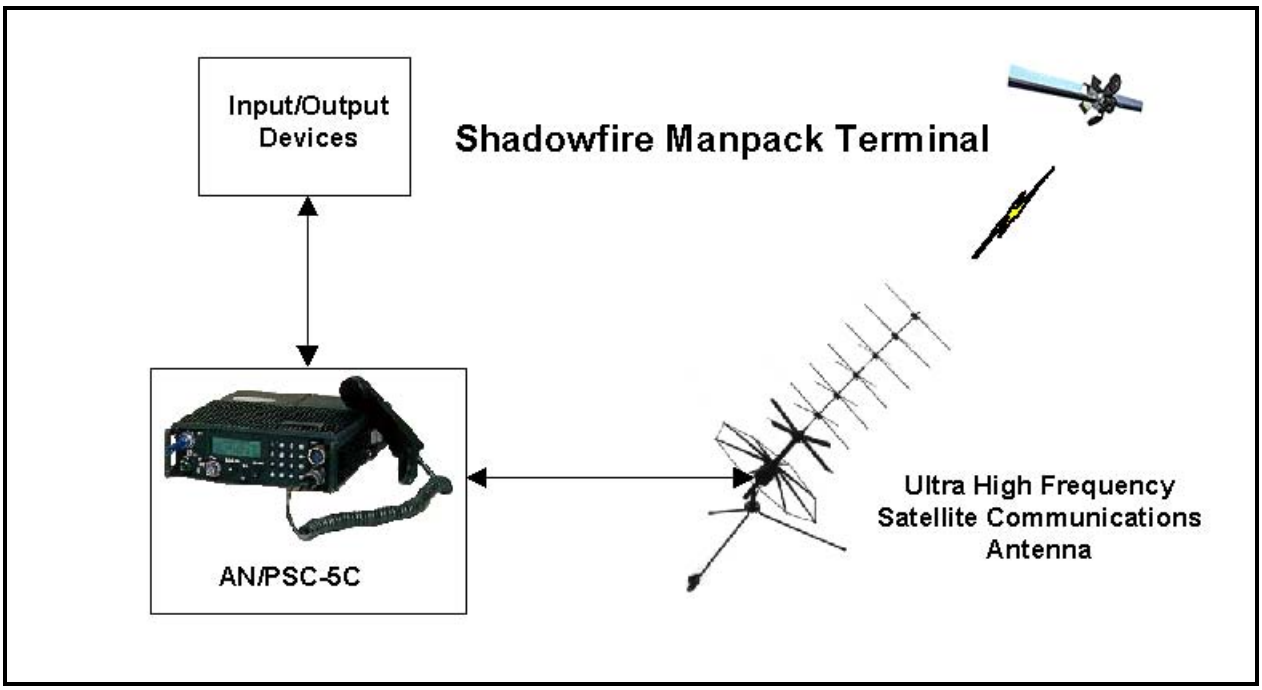

Figure 1. Tested System Configuration

7. SYSTEM CONFIGURATION. Terminal components and software versions include:

AN/PSC-5C Shadowfire ..... RT-1672C(C)/U
Control Processor Software (CP-SW)..... CTRL 02.78
Control Processor Hardware (CP-VHDL)..... CPHW 02.10
Modem Orderwire Encryption Board (Modem OEB)..... MOEB 02.00
Modem Digital Signal Processor (Modem DSP) ..... MDSP 05.19
Modem..... Version 14.00
Shadowfire Baseband Processor Software (BP-SFIRE)..... BPSW 08.13
SINCGARS Baseband Processor Software (BP-SGARS)..... BPSW 08.13
Baseband Processor Hardware (BP-VHDL) BPHW 02.40
Baseband Processor Hardware (BP-HW)..... *BPHW xx.xx
Fill Processor Software (FP-SW)..... FPSW 05.05
Fill Processor Hardware (FP-VHDL)..... FPHW 02.40
ANDVT Processor Software (AP-SW) ..... APSW 08.19
ANDVT Processor Hardware (AP-VHDL) ..... APHW 06.90
ANDVT Processor Hardware (AP-HW)..... *APHW xx.xx
TCP/IP Processor Software (TP-SW)..... TPSW 06.07

* - Raytheon hardware manufacturing uses these version numbers to track revisions on manufacturing parts lists. These version numbers will vary in fielded radios and have no effect on the installed software.

8. MODES OF OPERATION. All MIL-STD-188-183 mandatory and implemented optional modes of operation and capabilities have been verified. Optional capabilities implemented in this terminal include Data Transfer, Type B Conference Requests, Type B Guard List Reports, and the terminal implements both Method One and Method Two Dedicated Ranging. Optional MELP techniques for secure voice communications are implemented in this terminal.

9. TESTING LIMITATIONS. Details of the specific requirements that could not be verified are listed below.

a. Requirement 14, paragraph 5.1.2(5), "The first symbol following the Legendre Polynomial (LPN) shall be the first data symbol."

(1) Not Tested. Fill bits always follow the LPN. It was not possible to determine and compare the first data symbol.

(2) Impact. None. No adverse operational impact is anticipated.

b. Requirement 45, paragraph 5.1.4.1.1.b(3), "The accuracy of all ranges shall be 1 time chip or better."

(1) Not Tested. The terminal has no provision for directly measuring internal accuracy of the range delay measurement. However, the RF burst timing as received at the satellite met all other MIL-STD burst timing requirements. These other burst-timing requirements are dependent upon the range delay measurement. Therefore, the range delay accuracy was indirectly verified.

(2) Impact. None. No adverse operational impact is anticipated.

c. Requirement 625, paragraph 5.3.2(3), "Hardware implementation of the terminal shall include provisions for future implementation of Over-the-Air Rekeying (OTAR) for the orderwire."

(1) Not Tested. Testing could not be performed because OTAR of the TRANSEC Key for CCOW messages has not been implemented in the Channel Controller.

(2) Impact. None. Since the Channel Controller will not support OTAR of the TRANSEC Key for CCOW messages, OTAR is not being used in this mode of operations.

10. REQUIRED STANDARDS AND CONFORMANCE. The required standard is MIL-STD-188-183, "Interoperability Standard for 25-kHz UHF TDMA/DAMA Terminal Waveform," 2 December 1996. Table 1 delineates all the MIL-STD requirements and indicates the status as "Met," "Not Met," "Not Tested," or "Not Applicable." The

AN/PSC-5C Shadowfire Manpack Terminal meets the mandatory requirements set forth in MIL-STD-188-183. The following provides details and impacts to some of the noted requirements.

Requirement 2 (for Distributed Control (DC) Channel Control Orderwires (CCOWs), #1, #2, and #3) paragraph 4.3, and requirements 550 through 579 paragraphs 5.2.2.4.7.5.a(1) through 5.2.2.4.7.7f(2), all apply to DC mode frequency switching.

(1) Not Applicable. As directed by the Joint Chiefs of Staff in a memorandum with subject: "Requirement for Demand Assigned Multiple Access (DAMA) DC Mode Frequency Switching Capability," 4 February 1997, MIL-STD-188-183 requirements for DC mode frequency switching are no longer required and have been removed from MIL-STD-188-183A.

(2) Impact. None. No impact is anticipated since the requirement has been removed from MIL-STD-188-183A.

11. TEST AND ANALYSIS REPORT. JITC distributes test documentation via the JITC Electronic Report Distribution system which uses unclassified (NIPRNET) e-mail. More comprehensive information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/.gov users on the NIPRNET at https://stp.fhu.disa.mil. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at http://jit.fhu.disa.mil (NIPRNET) or http://199.208.204.125 (SIPRNET). JITC also provides a DAMA Certification Register on the JITC public website under "Product Registers." The DAMA Certification Register can be reached directly at http://jitc.fhu.disa.mil/reg/dama1.html. The UHF SATCOM DAMA Test Facility homepage can be reached directly at http://jitc.fhu.disa.mil/reg/uhfdama.htm. The testing agent point of contact is Norma Vega, DSN 879-1741, Commercial (520) 538-1741, e-mail vegan@fhu.disa.mil.

Table 1. MIL-STD-188-183 Requirements Matrix for the AN/PSC-5C Shadowfire Manpack Terminal

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
1	4.2.3	Terminal **shall** achieve CCOW acquisition for network entrance and synchronization data.	**Met**
2	4.3	The terminal **shall** be able to receive and process CCOW commands IAW tables IA and IB [of the MIL-STD] and generate RCCOW requests/responses IAW tables IIA and IIB [of the MIL-STD].	**Met (Note)**
Note: As directed by the JCS, requirement 2 (for DC CCOWs, #1, #2, and #3), and requirements 550 through 579 are applicable to DC mode frequency switching and are no longer required.			
3	4.4(1)	The terminal transmit power received at satellite **shall** be at least -163 decibels relative to 1 watt (dBW).	**Not Testable (Note)**
Note: General statement/definition. Not testable.			
4	4.4(2)	The terminal receiver system **shall** be designed to provide error-free reception of CCOW burst for at least 999 of 1000 CCOW bursts, with a confidence of 98 percent.	**Met**
5	4.4(3)	It **shall** be assumed that the controller power at the satellite is at least -163 dBW, and error free reception implies successful acquisition of the burst.	**Not Applicable (Note)**
Note: This is a Channel Controller requirement and, therefore, is not applicable to the terminal.			
6	4.4(4)	The terminal specifications **shall** define parameters that must be met to comply with requirements of this paragraph.	**Not Testable (Note)**
Note: General statement/definition. Not testable.			
7	5.1.1b(1)	The terminal **shall** transmit only in a time slot that is part of the current frame format.	**Met**
8	5.1.1b(2)	Format configuration and restrictions **shall** be as described in 5.1.1.1 and 5.1.1.2.	**Not Testable (Note)**
Note: General statement/definition. Not testable.			
9	5.1.1b(3)	The terminal **shall** be able to operate within this frame format structure.	**Met**
10	5.1.2(1)	Each RF transmission **shall** begin with a synchronization preamble.	**Met**
11	5.1.2(2)	The preamble structure, as it relates to the burst rates and slot types, **shall** be in accordance with figure 6 [of the MIL-STD].	**Met**
12	5.1.2(3)	The latter portion of the synchronization preamble **shall** be a Legendre polynomial (LPN) whose length is defined in figure 6 [of the MIL-STD] and whose content is specified in table III [of the MIL-STD].	**Met**
13	5.1.2(4)	The terminal's specification for bit error ratio (BER) and acquisition performance under degraded link conditions **shall** be used to determine how many LPN bits must be correctly received for a burst to be considered acquired.	**Met**
14	5.1.2(5)	The first symbol following the LPN **shall** be the first data symbol.	**Not Tested (Note)**
Note: Fill bits always follow the LPN. It was not possible to determine and compare the first data symbol.			
15	5.1.3c(1)	All RF transmissions **shall** occur within the allocated times of the slots specified in 5.1.3.1 through 5.1.3.5.	**Met**
16	5.1.3c(2)	The terminal's switching time **shall** not exceed 875 microseconds.	**Met**
17	5.1.3c(3)	Terminals **shall** inhibit transmission for at least 500 microseconds of the leading zeros (ones for the QPSK I channel) in figure 6 [of the MIL-STD] preamble structures.	**Met**
18	5.1.3d(1)	Duration of specified burst transmission **shall** be a function of slot type, baseband rate, burst rate, FEC coding (see 5.4.1), and fill bits required due to interleaving (see 5.4.3).	**Not Testable (Note)**
Note: General statement/definition. Not testable.			

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
19	5.1.3d(2)	Burst timing requirements and the component parts of all bursts for all defined slots **shall** be as specified in table IV [of the MIL-STD].	**Met**
20	5.1.3.e	The terminal's frame time delay for each baseband data rate **shall** not exceed the maximum corresponding values for each rate shown in table 4-1 of FSCS-212-16D.	**Met**
21	5.1.3.2(1)	RCCOW slot timing **shall** be as specified in table V [of the MIL-STD].	**Met**
22	5.1.3.2(2)	RCCOW reception **shall** start at time chip 18253 for format number 1 (time chip 5837 for format number 2).	**Met**
23	5.1.3.2(3)	Requirements for content and use of RCCOW **shall** be as specified in 5.2.2.2 for AC mode and 5.2.2.5 for DC mode.	**Met**
24	5.1.3.2(4)	Requirements for RCCOW transmit decision **shall** be as specified in 5.2.2.3 for AC mode and 5.2.2.6 for DC mode.	**Met**
25	5.1.3.3(1)	The user terminal **shall** use a range processing method discussed in 5.1.4 (active or passive ranging).	**Met**
26	5.1.3.3(2)	Burst transmissions (other than ranging) **shall** be inhibited by the terminal when it has been determined by any ranging method that the range uncertainty exceeds 0.875 ms.	**Met**
27	5.1.3.3a(1)	The range time slot is a shared slot and **shall** be used only to measure range to the satellite.	**Met**
28	5.1.3.3a(2)	If the average relative velocity between the satellite and the user terminal during a ranging interval is greater than 180 nautical miles per hour, other methods of updating bursts transmission time **shall** be used, including, but not limited to, the methods listed in this paragraph.	**Met**
29	5.1.3.3b(1)	The requirement for terminals to maintain accurate timing **shall** be mandatory.	**Not Testable (Note)**
Note: General statement/definition. Not testable.			
30	5.1.3.3b(2)	Range and link-test time slots **shall** not be used by terminals for ranging except in accordance with the requirements specified in 5.1.4.1.	**Met**
31a	5.1.3.3b(3)	Range slot timing **shall** be as specified in table V [of the MIL-STD].	**Met**
31b	Footnote on Page 37 [of the MIL-STD]	If range $\leq$ 241.87 ms, the guard time at the start of the slot **shall** be reduced by 62 time chips to prevent overlapping a CCOW reception with a ranging transmission.	**Met**
32	5.1.3.4(1)	Link-test-slot timing **shall** be as specified in table V [of the MIL-STD].	**Met**
33	5.1.3.4(2)	The link-test time slot **shall** be 1293 time chips (67.344 ms) in duration with a variable-length guard time allocated at the end of the slot.	**Met**
34	5.1.3.4(3)	The link test reception **shall** start at time chip 4544.	**Met**
35	5.1.3.4(4)	Only one terminal at a time **shall** perform a link test.	**Met**
36	5.1.3.4(5)	Requirements for using the link test slot in support of the ranging function **shall** be as specified in 5.1.4.1.	**Met**
37	5.1.3.5(1)	User-segment-slot timing **shall** be as specified in tables VI through X [of the MIL-STD].	**Met**
38	5.1.3.5(2)	All RF transmissions **shall** occur to allow reception within the allocated time slots specified in these tables [of the MIL-STD].	**Met**
39	5.1.4	If terminals use range and link-test time slots to perform active ranging, the algorithms specified in 5.1.4.1 and its subparagraphs **shall** be used.	**Met**
40	5.1.4.1.1a(1)	After achieving CCOW acquisition, the terminal **shall** select the first available odd numbered frame to perform a range measurement in the range time slot.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
41	5.1.4.1.1a(2)	If the first random range measurement is unsuccessful, the terminal **shall** generate a random number (y) between 1 and 128, wait 2y frames, and perform a range measurement using the range time slot to be received in the odd-numbered frame that is 2y frames following the unsuccessful measurement.	**Met**
42a	5.1.4.1.1a(3)	If this range measurement is unsuccessful, the user terminal **shall** wait 256 - 2y frames before generating another random number (y)…	**Met**
42b	5.1.4.1.1a(4)	…and **shall** repeat the process.	**Met**
43	5.1.4.1.1b(1)	The range estimate used to set uplink timing for a ranging transmission **shall** be dithered, in 1-time chip increments, between 251.35 and 257.97 ms when in the random range mode or when range has not been determined.	**Met**
44	5.1.4.1.1b(2)	As long as range remains determined, the terminal's next ranging transmission **shall** be positioned so as to attempt to fall exactly in the center of its time slot.	**Met**
45	5.1.4.1.1b(3)	The accuracy of all ranges **shall** be 1 time chip or better.	**Not Tested (Note)**
Note: A terminal has no provision for measuring the internal accuracy of the range delay measurement.			
46	5.1.4.1.2	Two methods of dedicated ranging **shall** be employed, depending on the terminal's ranging epoch internal requirements.	**Not Testable (Note)**
Note: General statement/definition. Not testable.			
47	5.1.4.1.2.1(1)	Terminals that do not require range updates within 1024 frames **shall** not transmit during even numbered range slots.	**Met**
48	5.1.4.1.2.1(2)	Upon successful completion of ranging in the random access mode, the terminal **shall** continuously monitor link test slots in even numbered frames.	**Met**
49	5.1.4.1.2.1a(1)	The terminal **shall** maintain and update a ranging activity database for 1024 frame times by identifying and flagging those frames with activity in the ELT slot.	**Met**
50	5.1.4.1.2.1a(2)	The terminal **shall** then generate a random number (X) between 1 and 64, wait 2X frames, and identify the next unused ELT slot, based on flags set during the preceding 1024 frames.	**Met**
51	5.1.4.1.2.1a(3)	The terminal **shall** perform a dedicated range measurement in that unused ELT slot and, when successful, every 1024 frames thereafter.	**Met**
52	5.1.4.1.2.1b(1)	If the terminal instead continues to perform dedicated ranging, it **shall** use the established ELT activity database to help identify the next unused ELT slot.	**Not Applicable (Note)**
53	5.1.4.1.2.1b(2)	The terminal again **shall** generate a random number (X) between 1 and 64, wait 2X frames, and identify the next unused ELT slot, based on flags set during the preceding 1024 frames.	
54	5.1.4.1.2.1b(3)	The terminal **shall** perform a dedicated range measurement in that unused ELT slot and, when successful, every 1024 frames thereafter.	
55	5.1.4.1.2.1b(4)	This process **shall** be repeated by the terminal as necessary.	
Note: Optional Requirements. The terminal reverts to the random ranging algorithm to perform a range measurement when a dedicated range measurement is unsuccessful.			
56	5.1.4.1.2.2a(1)	Upon successful completion of ranging in the random access mode, the terminal **shall** continuously monitor link test slots in the even numbered frames.	**Met**
57	5.1.4.1.2.2a(2)	The terminal **shall** maintain and update a ranging activity database of 1024 frame times by identifying and flagging those frames with activity in the ELT slot.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
58	5.1.4.1.2.2b(1)	The terminal **shall** then generate a random number (X) between 1 and 64, wait 2X frames, and identify the next unused ELT slot, based on flags set during the preceding 1024 frames.	**Met**
59	5.1.4.1.2.2b(2)	The terminal **shall** then determine if this frame number equals 256N + 2, where N is any positive integer.	**Met**
60	5.1.4.1.2.2b(3)	If true, this frame number **shall** be excluded by the terminal as a potential dedicated ranging frame, since the range slot in a frame with this number is reserved for the channel controller.	**Met**
61	5.1.4.1.2.2b(4)	In such a case, the frame for the next unused ELT slot **shall** be identified.	**Met**
62	5.1.4.1.2.2b(5)	The terminal **shall** attempt to range in the identified unused ELT slot (called frame R), or in the even numbered frame range slot in frame R - 512, whichever comes first.	**Met**
63	5.1.4.1.2.2c(1)	The terminal **shall** then perform dedicated ranging by alternating between the ELT slot and the even numbered frame ranging slot each 512 frame periods.	**Met**
64	5.1.4.1.2.2c(2)	If the terminal instead continues to perform dedicated ranging, it **shall** use the established ELT activity database to help identify the next unused ELT slot.	**Not Applicable (Note)**
65	5.1.4.1.2.2c(3)	The terminal again **shall** generate a random number (X) between 1 and 64, wait 2X frames, and identify the next unused ELT slot, based on flags set during the preceding 1024 frames.	
66	5.1.4.1.2.2c(4)	The process described above **shall** then be repeated as required.	
Note: Optional Requirements. The terminal reverts to the random ranging algorithm to perform a range measurement when a dedicated range measurement is unsuccessful.			
67	5.2.1(1)	Baseband data from any of the I/O ports **shall** be selectable through orderwire commands.	**Not Applicable (Note)**
Note: The terminal only has one I/O port.			
68	5.2.1(2)	Baseband data **shall** be presented to the FEC encoder in the order it is received from the baseband equipment.	**Met**
69	5.2.1(3)	Baseband data bit number one **shall** be the first data bit sent into the encoder.	**Met**
70	5.2.1.1(1)	Each of the orderwires (CCOW and RCCOW) **shall** be composed of thirteen 8-bit bytes.	**Met**
71	5.2.1.1(2)	The ordering of these bits and the operation of the cyclic redundancy check (CRC) **shall** be as described in 5.2.1.2 through 5.2.1.3.	**Met**
72	5.2.1.1(3)	Except for calculating CRC, terminals **shall** ignore (unused bits).	**Met**
73	5.2.1.2	The thirteen 8-bit bytes of the orderwire **shall** be presented to the encoder in the following order: LSB of byte 1 through MSB of byte 1, LSB of byte 2 through MSB of byte 2, LSB of byte 13 through MSB of byte 13.	**Met**
74	5.2.1.3(1)	In addition to convolutional encoding and interleaving, orderwires **shall** undergo 2-byte CRCs on their 13 bytes.	**Met**
75	5.2.1.3(2)	The parity bytes **shall** be sent within the structure of each orderwire.	**Met**
76	5.2.1.3(3)	The parity of a received orderwire command **shall** be recalculated and compared to the received parity.	**Met**
77a	5.2.1.3(4)	If the parities do not match, the orderwire **shall** be discarded;…	**Met**
77b	5.2.1.3(5)	…otherwise, it **shall** be processed.	**Met**
78	5.2.1.3(5)	To encode the message polynomial G(X) **shall** first be multiplied by X^n.	**Not Testable (Note)**
Note: General statements/definitions. Not testable.			

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
79	5.2.1.3(6)	The result **shall** be divided by P(X) to form both the quotient Q(X) and the remainder R(X).	**Not Testable (Note)**
80	5.2.1.3(7)	This CRC method **shall** be the IBM Binary Synchronous Communications (BSC) CRC-16 Protocol.	
Note: General statements/definitions. Not testable.			
81	5.2.1.3(8)	The CRC **shall** be calculated using thirteen 8-bit bytes.	**Met**
82	5.2.1.3(9)	The locations that the CRC will occupy in CCOW and RCCOW messages **shall** be set to zeros during the CRC calculation.	**Not Testable (Note)**
Note: General statement/definition. Not testable.			
83	5.2.1.3(10)	Then the zeros **shall** be replaced by the calculated CRC before the message is transmitted.	**Met**
84	5.2.2	Field definitions of the CCOW and RCCOW bursts for both AC and DC operating modes **shall** be as indicated in appendixes A and B, respectively.	**Met**
85	5.2.2.1	The terminal **shall** comply with CCOW command no later than the next frame after receiving the CCOW.	**Met**
86a	5.2.2.1.1(1)	All terminal units **shall** record in what frame they transmitted an RCCOW…	**Met**
86b	5.2.2.1.1(2)	…and, exactly three frames later, **shall** decode the CALL ACK field to find out what type of CALL ACK they have received.	**Met**
87	5.2.2.1.1(3)	If the terminal does not receive a CALL ACK, it **shall** proceed in accordance with paragraph 5.2.2.3.3.	**Met**
88	5.2.2.1.2	The terminal interpretation of these codes **shall** be as follows:	**Met**
89	5.2.2.1.2a	The terminal unit **shall** not transmit an RCCOW that is below the RCCOW precedence.	**Met**
90	5.2.2.1.2b	Specifies that the terminal unit whose user number matches the number given by the CCOW **shall** transmit a conference list RCCOW in the next frame.	**Met**
91	5.2.2.1.2c	Specifies that one particular terminal unit identified in the CCOW by its user number has been dedicated to the RCCOW slot in the next frame.	**Met**
92	5.2.2.1.2e	Specifies that the terminal unit identified by its user number **shall** transmit a Status Report A: Group 1 RCCOW in the next frame.	**Met**
93	5.2.2.1.2f	Specifies that the terminal unit identified by its user number **shall** transmit a Status Report A: Group 2 RCCOW in the next frame.	**Met**
94	5.2.2.1.2g	Specifies that the terminal unit identified by its user number **shall** transmit a Status Report B: Group 1 RCCOW in the next frame.	**Met**
95	5.2.2.1.2h	Specifies that the terminal unit identified by its user number **shall** transmit a Status Report B: Group 2 RCCOW in the next frame.	**Met**
96	5.2.2.1.2i	Specifies that the terminal unit identified by its user number **shall** transmit a Link Test Results RCCOW in the next frame.	**Met**
97	5.2.2.1.2j	Specifies that the terminal unit identified by its user number **shall** report the first group of numbers in its guard lists in the next frame.	**Met**
98	5.2.2.1.2k	Specifies that the terminal unit identified by its user number **shall** report the second group of numbers in its guard lists in the next frame.	**Met**
99	5.2.2.1.2l	Specifies that the terminal unit identified by its user number **shall** report the third group of numbers in its guard lists in the next frame.	**Met**
100	5.2.2.1.2m	Specifies that the terminal unit identified by its user number **shall** report the fourth group of numbers in its guard lists in the next frame.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
101	5.2.2.1.2n	Specifies that the terminal unit with five to eight ports guarding at least 14 numbers and identified by its user number **shall** report guard numbers not reported in Guard List Report: Groups 1-4 in the next frame.	**Met**
102	5.2.2.1.2o	Specifies that terminal units **shall** inhibit the transmission of any RCCOW in the next frame.	**Met**
103	5.2.2.1.3	All terminals with 16-bit addresses **shall** assume the MSB (Bit 16) is a zero when receiving the Master Frame CCOW.	**Met**
104	5.2.2.1.7.1c(1)	If the frame format has not changed from the previous master frame, no terminal action **shall** be taken.	**Met**
105	5.2.2.1.7.1c(2)	If the frame format has changed, the terminal **shall** check its slot connects and disconnect any that existed in the changed segment(s) of the frame format.	**Met**
106	5.2.2.1.7.1h(1)	If the DC flag is reset, the terminal **shall** operate in the AC mode.	**Met**
107	5.2.2.1.7.1h(2)	If the DC flag is set, the terminal **shall** operate in the DC mode.	**Met**
108	5.2.2.1.7.2	A terminal **shall** disconnect its I/O port(s) when it receives a slot disconnect order.	**Met**
109	5.2.2.1.7.2a	If the slot number is connected to the terminal I/O port, and if the slot connect frequency is the same as the frequency on which the terminal is receiving the CCOW, the terminal **shall** perform a slot disconnect.	**Met**
110a	5.2.2.1.7.2b(1)	The terminal **shall** compare this (User #1 ID) ID number with the port numbers…	**Met**
110b	5.2.2.1.7.2b(2)	…and **shall** also search the guarded list of each port for the number.	**Met**
111	5.2.2.1.7.2b(3)	If no match is found, no terminal action **shall** be taken.	**Met**
112	5.2.2.1.7.2b(4)	If a match is found, the terminal I/O port **shall** be disconnected.	**Met**
113	5.2.2.1.7.2c	This data field (User #2 ID) **shall** cause the same terminal action and results for the User #2 ID number as described for the User #1 ID number.	**Met**
114	5.2.2.1.7.2d	User #1 All Ports Flag - All ports of the terminal identified by User #1 **shall** be disconnected.	**Met**
115	5.2.2.1.7.2e	User #2 All Ports Flag - All ports of the terminal identified by User #2 **shall** be disconnected.	**Met**
116	5.2.2.1.7.2f	The presence of nonzero data in the TIME #1 field indicates that the terminal I/O port identified by the User #1 ID number **shall** perform a timed disconnect; in other words, the port **shall** disconnect when the identified amount of time has elapsed.	**Met**
117	5.2.2.1.7.2g	The TIME #2 field **shall** cause the same terminal action for the User #2 ID number, as described in subparagraph f for TIME #1.	**Met**
118	5.2.2.1.7.3(1)	A terminal **shall** connect its I/O port(s) when it receives a slot connect order.	**Met**
119	5.2.2.1.7.3(2)	The slot connect **shall** be as follows:	**Met**
120	5.2.2.1.7.3a	The port specified in c and d below **shall** be configured to operate at the bit rate corresponding to the code as shown below: BPS CODE BPS CODE 75 000 2400 100 300 001 4800 101 600 010 16000 110 1200 011 SPARE 111	**Not Applicable (Note)**
Note: A terminal does not use the Bit Rate field to determine the actual data rate. The actual data rate is derived from the Slot Number field.			
121	5.2.2.1.7.3b	Slot Number - These bits indicate the time slot to which the terminal I/O port **shall** be connected.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
122a	5.2.2.1.7.3c(1)	The terminal **shall** compare the User #1 ID with its port numbers…	**Met**
122b	5.2.2.1.7.3c(2)	…and **shall** also search the guard list of each port for the number.	**Met**
123	5.2.2.1.7.3c(3)	If a match is found, the I/O port that has been identified **shall** be connected.	**Met**
124a	5.2.2.1.7.3d(1)	The terminal **shall** compare the User #2 ID with its port numbers…	**Met**
124b	5.2.2.1.7.3d(2)	…and **shall** also search the guard list of each port for the number.	**Met**
125	5.2.2.1.7.3d(3)	If a match is found, the I/O port that has been identified **shall** be connected.	**Met**
126	5.2.2.1.7.3e	If the User #1 Receive-Only Flag is set, the User #1 ID number port **shall** be connected with a receive-only limitation.	**Met**
127	5.2.2.1.7.3.f	If the User #2 Receive-Only Flag is set, the User #2 ID number port **shall** be connected with a receive-only limitation.	**Met**
128	5.2.2.1.7.3g(1)	The presence of zero in the TIME field indicates that the I/O port identified by either user number **shall** have an unlimited slot assignment time.	**Met**
129	5.2.2.1.7.3g(2)	If the TIME field is nonzero, the I/O ports identified by the user numbers **shall** connect for the defined time period.	**Met**
130	5.2.2.1.7.3g(3)	The ports **shall** disconnect when this time has elapsed.	**Met**
131	5.2.2.1.7.3h(1)	When the Pre-set Channel Code is received and the IDs match, the I/O port **shall** be checked to determine if it is connected to a slot.	**Met**
132	5.2.2.1.7.3h(2)	If the port is already connected, but not to the same pre-set channel code as in the CCOW, then the connect **shall** be ignored.	**Met**
133	5.2.2.1.7.3h(3)	If the connect order is accepted, the connect pre-set channel code **shall** be stored in non-volatile memory.	**Not Applicable (Note)**
Note: This requirement was deleted by change notice one.			
134	5.2.2.1.7.3h(4)	appendix C table 30 IB [of the MIL-STD] contains frequency pair information which **shall** be used for the terminal's pre-set channel code database.	**Met**
135	5.2.2.1.7.4a(1)	Each terminal unit **shall** compare the User Number with its base address.	**Met**
136	5.2.2.1.7.4a(2)	If a match is found, the CCOW command **shall** be executed.	**Met**
137	5.2.2.1.7.4b	The T Flag, when set, indicates that an ongoing terminal link test **shall** be terminated.	**Met**
138	5.2.2.1.7.4c	The 9.6-kbps Flag A, when set, indicates that the terminal link test **shall** be performed at 9.6 kbps.	**Met**
139	5.2.2.1.7.4d	The 19.2 kbps Flag B, when set, indicates that the terminal link test **shall** be performed at 19.2 kbps.	**Met**
140	5.2.2.1.7.4e	The 32-kbps Flag C, when set, indicates that the terminal link test **shall** be performed at 32 kbps.	**Met**
141	5.2.2.1.7.4f(1)	The Dedicated Range Frame-Number field **shall** be 12 bits wide and **shall** represent the dedicated receive frame count for the terminal to range in.	**Met**
142	5.2.2.1.7.4f(2)	The Dedicated Range Frame-Number field **shall** have a value of zero when the command is a link test assignment.	**Met**
143	5.2.2.1.7.4f(3)	When the Dedicated Range Frame-Number field is received, the terminal **shall** store it as new status information.	**Met**
144	5.2.2.1.7.4f(4)	Every frame time the Dedicated Range Frame-Number **shall** be compared to the first 12 bits of the current frame count.	**Met**
145	5.2.2.1.7.4f(5)	If there is a match, the terminal **shall** perform a range measurement in the identified frame, unless the terminal configuration prohibits ranging.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
146	5.2.2.1.7.5	The terminal **shall** do no processing of the Channel Control Handover Request unless it has the functional capability to become a channel controller.	**Not Applicable (Note)**
Note: This terminal does not have optional channel control capabilities.			
147	5.2.2.1.7.6a(1)	A terminal **shall** compare the User #1 ID with its base address.	**Met**
148	5.2.2.1.7.6a(2)	If a match is found, the terminal **shall** change its frame format to that which is given in the Format #1 field in subparagraph d, below.	**Met**
149	5.2.2.1.7.6b(1)	A terminal **shall** compare the User #2 ID with its base address.	**Met**
150	5.2.2.1.7.6b(2)	If a match is found, the terminal **shall** change its frame format to that which is given in the Format #2 field in subparagraph e, below.	**Met**
151	5.2.2.1.7.6c(1)	When the All-User Flag is set, all terminals on the RF channel **shall** change their frame formats.	**Met**
152	5.2.2.1.7.6c(2)	The new format **shall** be Format #1.	**Met**
153	5.2.2.1.7.7a(1)	A terminal **shall** compare the User #1 ID field with its port numbers.	**Met**
154	5.2.2.1.7.7a(2)	If a match is found, the call request for the port **shall** be cancelled.	**Met**
155	5.2.2.1.7.7b(1)	A terminal **shall** compare the User #2 ID field with its port numbers.	**Met**
156	5.2.2.1.7.7b(2)	If a match is found, the call request for the port **shall** be cancelled.	**Met**
157	5.2.2.1.7.7c(1)	A terminal **shall** compare the User #3 ID field with its port numbers.	**Met**
158	5.2.2.1.7.7c(2)	If a match is found, the call request for the port **shall** be cancelled.	**Met**
159	5.2.2.1.7.8	Channel assignment **shall** be performed in accordance with 5.2.2.1.7.8.1 and 5.2.2.1.7.8.2.	**Met**
160	5.2.2.1.7.8.1(1)	The effect of changing a terminal's frequency code is that the terminal **shall** transmit and receive orderwires on another RF channel.	**Met**
161	5.2.2.1.7.8.1(2)	If either the terminal ID matches or all terminals are directed to change their channel, the new frequency code **shall** replace the existing frequency code.	**Met**
162	5.2.2.1.7.8.1(3)	The terminal **shall** determine, based on the frequency field (subparagraph a) and appendix C [of the MIL-STD], if the assigned channel is 5- or 25-kHz.	**Met**
163	5.2.2.1.7.8.1(4)	If the channel is 5-kHz, the DAMA waveform **shall** be in accordance with MIL STD 188-182.	**Met (Note)**
Note: Testing was limited to achieving downlink and uplink synchronization on a 5-kHz DAMA channel, and establishing communications. Compliance to MIL-STD requirements is addressed during separate MIL-STD-188-182A testing.			
164	5.2.2.1.7.8.1(5)	If the assigned channel is 25-kHz, the DAMA waveform **shall** be in accordance with 188-183.	**Met**
165	5.2.2.1.7.8.1(6)	If the terminal cannot achieve downlink and uplink acquisition within 90 seconds, the terminal **shall** return to the previous channel of operation.	**Met**
166	5.2.2.1.7.8.1(7)	If the terminal is switching from one 25-kHz DAMA channel to another, then the terminal **shall** retain all RCCOWs that are held in queue prior to the change.	**Met**
167a	5.2.2.1.7.8.1(8)	If the terminal is switching from a 25-kHz DAMA channel to a 5-kHz DAMA channel, then the terminal **shall** clear (i.e., delete) all RCCOWs that are held in queue,…	**Met**
167b	5.2.2.1.7.8.1(9)	…and **shall** send a ROW: LOGIN message on the new 5-kHz channel.	**Met**
168	5.2.2.1.7.8.1(10)	After a terminal is assigned to a new TDMA channel (5- or 25 kHz), it **shall** not return to the previous channel or change to any other channel unless directed by the channel controller.	**Met**
169	5.2.2.1.7.8.1a	The terminal **shall** use the Channel Frequency Code, based on appendix C, table 30 IA [of the MIL-STD], to determine the satellite channel on which to operate.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
170	5.2.2.1.7.8.1b	The All-Change Flag, when set, indicates that all terminals on the channel **shall** change their frequency codes.	**Met**
171	5.2.2.1.7.8.1c	If the User #1 ID is the same as the terminal's base address, the terminal **shall** change its frequency code.	**Met**
172	5.2.2.1.7.8.1d	If the User #2 ID is the same as the terminal's base address, the terminal **shall** change its frequency code.	**Met**
173	5.2.2.1.7.8.1.e	If the User #3 ID is the same as the terminal's base address, the terminal **shall** change its frequency code.	**Met**
174	5.2.2.1.7.8.2(1)	Terminals **shall** comply with the configuration of the assigned channel.	**Met**
175	5.2.2.1.7.8.2(2)	They **shall** return to the channel of origin (the channel where they received the assignment) under either of the following conditions: After communications are completed, or after the timer expires.	**Met**
176	5.2.2.1.7.8.2(3)	If the terminal returns to the channel of origin for a reason other than expiration of the timer, it **shall** respond with an RCCOW Call Complete message after regaining transmit timing on the channel of origin.	**Met**
177	5.2.2.1.7.8.2a	The terminal **shall** use the Channel Frequency Code, based on appendix C, table 30-IA [of the MIL-STD], to determine the satellite channel on which to operate.	**Met**
178	5.2.2.1.7.8.2b	The All-Change Flag, when set, indicates that all terminal on the channel **shall** change their frequency codes.	**Met**
179	5.2.2.1.7.8.2c	If the User #1 ID field is the same as the terminal's base address, the terminal **shall** change its frequency code.	**Met**
180	5.2.2.1.7.8.2d	If the User #2 ID field is the same as the terminal's base address, the terminal **shall** change its frequency code.	**Met**
181	5.2.2.1.7.8.2e(1)	The 6-bit Time field **shall** be binary numbers 1 through 59.	**Met**
182	5.2.2.1.7.8.2e(2)	The presence of nonzero data in the Time field indicates that the terminals identified by User ID numbers **shall** perform a timed slot or channel disconnect; in other words, the terminals **shall** return to the channel of origin when the identified amount of time has elapsed.	**Met**
183	5.2.2.1.7.9a(1)	The terminal **shall** compare the User ID number with its port numbers.	**Met**
184	5.2.2.1.7.9a(2)	If a match is found, the terminal **shall** check the total number of guard numbers for all ports.	**Met**
185	5.2.2.1.7.9a(3)	If there is less than the maximum that can be guarded by a terminal, the guard numbers defined in b and c (below) **shall** be entered into the specific port guard list.	**Met**
186	5.2.2.1.7.9a(4)	Guard lists **shall** be entered in the order received, up to the maximum number that can be guarded.	**Met**
187	5.2.2.1.7.9b	As described in a (above), the Guard #1 **shall** be entered into the port guard list.	**Met**
188	5.2.2.1.7.9c	As described in a (above), the Guard #2 **shall** be entered into the port guard list.	**Met**
189	5.2.2.1.7.10a(1)	The terminal **shall** compare the User ID number with its port numbers.	**Met**
190	5.2.2.1.7.10a(2)	If a match is found, the terminal **shall** search the guard list for the guard numbers defined in b and c (below).	**Met**
191	5.2.2.1.7.10a(3)	If they are found, they **shall** be deleted from the guard list.	**Met**
192	5.2.2.1.7.10b	The Guard #1 field contains a guard number that the terminal **shall** delete from its guard list.	**Met**
193	5.2.2.1.7.10c	The Guard #2 field contains a guard number that the terminal **shall** delete from its guard list.	**Met**
194	5.2.2.1.7.11a(1)	The terminal **shall** compare the Called Party number with its port numbers and search the guard list of each port for the number.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
195	5.2.2.1.7.11a(2)	For the first match found, the command **shall** be executed.	**Met**
196	5.2.2.1.7.12a(1)	The terminal **shall** compare the Calling Party #1 number with its port numbers.	**Met**
197	5.2.2.1.7.12a(2)	If a match is found, the terminal **shall** respond in accordance to the direction specified in the terminal system specification.	**Met**
198	5.2.2.1.7.12b(1)	The terminal **shall** compare the Calling Party #2 number with its port numbers.	**Met**
199	5.2.2.1.7.12b(2)	If a match is found, the terminal **shall** respond in accordance to the direction specified in the terminal system specification.	**Met**
200	5.2.2.1.7.13a(1)	The terminal **shall** compare the Called Party number with its port numbers.	**Met**
201	5.2.2.1.7.13a(2)	If a match is found, the terminal **shall** output the data with precedence, as specified in subparagraphs b and c, below.	**Met**
202	5.2.2.1.7.14a	The terminal **shall** compare the Called Party number with the user ID number assigned to each of its port numbers for a match.	**Met**
203	5.2.2.1.7.14.1(1)	After an information request has been received by a terminal, it **shall** send an information report before sending any other RCCOW.	**Met**
204	5.2.2.1.7.14.1(2)	No other RCCOW messages **shall** be sent before the information report.	**Met**
205	5.2.2.1.7.14.2(1)	The Constant Key Alarm Information Request message **shall** be used by the terminal to automatically disconnect a port that has been illegally transmitting on a slot for greater than 17 minutes.	**Met**
206	5.2.2.1.7.14.2(2)	If there is a match between the terminal's port number and the user ID number in the Called Party field of the Information Request, and the code is 4, the terminal **shall** automatically disconnect its port from the slot.	**Met**
207	5.2.2.1.7.15	When a terminal receives the Zeroize CCOW command, it **shall** zeroize the key storage memories of the KG and disconnect all slot connects.	**Met**
208	5.2.2.1.7.15a(1)	The terminal **shall** compare the Called Party #1 number with Called Party #2 and with its base user ID.	**Met**
209	5.2.2.1.7.15a(2)	If all three match, the command **shall** be executed by terminal control signals that cause the KG to erase stored keys.	**Met**
210	5.2.2.1.7.15b	If the Called Party #2 is not an exact copy of the Called Party #1 data field, the command **shall** not be executed.	**Met**
211	5.2.2.1.7.16	All terminals receiving the Time Slot Preparation command **shall** change the manner in which they prepare their orderwire KGs for CCOW and RCCOW.	**Met**
212	5.2.2.1.7.16a	The terminal action **shall** be either: a Time Slot Zero (TS0) preparation, or Selection of new variables to prepare the KG.	**Met**
213	5.2.2.1.7.16b(1)	If the TS0 Flag is set, all terminals **shall** perform a TS0 at the frame count given in this CCOW.	**Met**
214	5.2.2.1.7.16b(2)	The result **shall** be that new variables are used to prepare the KG and that the frame count is reset to 24.	**Met**
215	5.2.2.1.7.16c(1)	If the Change KG Day Flag is set, all terminals **shall** change the KG day variable used to prepare the KG.	**Met**
216a	5.2.2.1.7.16c(2)	The change **shall** occur at the frame count given in this CCOW,…	**Met**
216b	5.2.2.1.7.16c(3)	…and the new KG day **shall** be the one given in this CCOW.	**Met**
217	5.2.2.1.7.16d(1)	If the Change Memory Flag is set, all terminals **shall** change the KG memory in use.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
218	5.2.2.1.7.16d(2)	The change **shall** occur at the frame count given in this CCOW, and the new KG memory **shall** be that which is given in this CCOW.	**Met**
219	5.2.2.1.7.17a(1)	The terminal **shall** compare the Calling Party #1 number with its port numbers.	**Met**
220	5.2.2.1.7.17a(2)	If a match is found, the command **shall** be executed for the specific port.	**Met**
221	5.2.2.1.7.17b(1)	The terminal **shall** compare the Calling Party #2 number with its port numbers.	**Met**
222	5.2.2.1.7.17b(2)	If a match is found, the command **shall** be executed for the specific port.	**Met**
223	5.2.2.1.7.18(1)	If the Transmit flag is reset, it indicates that all terminals **shall** inhibit their RF transmissions.	**Met**
224	5.2.2.1.7.18(2)	The terminal **shall** disconnect all I/O ports connected to time slots.	**Met**
225	5.2.2.2(1)	The terminal **shall** be able to send 14 different mandatory RCCOW messages in the AC mode.	**Met**
226	5.2.2.2(2)	If the terminal is required by its equipment performance specification to use RCCOW Data Transfer messages, it **shall** also receive RCCOW messages.	**Not Applicable (Note)**
Note: Optional requirement not implemented in this terminal.			
227	5.2.2.2(3)	There **shall** be three common fields in the RCCOW message formats: (1) the STATION ID field, (2) the MESSAGE CODE field, and (3) the PARITY field.	**Not Testable (Note)**
Note: General statement/definition. Not testable.			
228	5.2.2.2(4)	The terminal **shall** test the RCCOW assignment portion of the CCOW in every frame to determine if it is expected to respond with an RCCOW.	**Met**
229	5.2.2.2(5)	The RCCOWS, which **shall** be created by an assignment, **shall** be as follows: Status Report A: Group 1 Code 01001 Status Report A: Group 2 Code 10001 Status Report B: Group 1 Code 01010 Status Report B: Group 2 Code 10010 Report Link Test Results: Code 01011 Guard List Report: Group 1 Code 01100 Guard List Rpt: Group 2 Code 01101 Guard List Rpt: Group 3 Code 01110 Guard List Rpt: Group 4 Code 01111 Guard List Rpt: Group 5 Code 10011	**Met**
230	5.2.2.2.1	The Station ID field **shall** identify the KG ID of the terminal that originates the RCCOW.	**Met**
231	5.2.2.2.2(1)	The RCCOW Message Code field **shall** identify which of the 17 RCCOW messages is used in this frame.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
232	5.2.2.2.2(2)	The messages and associated codes **shall** be as listed below: Status Report B Code 00001 Data Transfer (Type B) Code 00010 Link Test Request Code 00011 Call Complete Code 00100 Out-of-Service Code 00101 Information Report Code 00110 Two-Party Request (or Cancel Call) Code 00111 Conference Request (or Cancel Call)(Type B) Code 01000 Conference Party List Code 01001 Link Test Results Code 01010 Status Report A Code 01011 Ack Channel Control Request Code 01100 Guard List Report (Type B) Code 01101 Paging Code 01110 Data Transfer (Type A) Code 01111 Conference Request (or Cancel Call)(Type A) Code 10000 Guard List Report (Type A) Code 10001	**Met**
233	5.2.2.2.3	The parity field **shall** define the 2-byte CRC for RCCOW messages, which was derived in accordance with 5.2.1.3.	**Met**
234	5.2.2.2.4.1a	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	**Met**
235	5.2.2.2.4.1b	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
236	5.2.2.2.4.1c	The Reporting Party field **shall** contain the user number of the terminal port that initiated the RCCOW.	**Met**
237	5.2.2.2.4.1d(1)	The Configuration Code field **shall** contain the configuration code of the terminal port that initiated the RCCOW.	**Met**
238	5.2.2.2.4.1d(2)	The Configuration Code **shall** define the port bit rate and the type of baseband equipment connected to the port.	**Met**
239	5.2.2.2.4.1d(3)	The terminal **shall** allow the operator to enter operationally assigned configuration codes.	**Met**
240	5.2.2.2.4.1d(4)	The data **shall** have a BCD format.	**Met**
241	5.2.2.2.4.1d(5)	Valid codes **shall** range from 1 to 99 and are operationally assigned.	**Met**
242	5.2.2.2.4.1e(1)	The Port Configuration Change Flag, when set, **shall** indicate that the terminal port has changed the configuration code.	**Met**
243	5.2.2.2.4.1e(2)	This Status Report B RCCOW **shall** be generated whenever a terminal port configuration change is made.	**Met**
244	5.2.2.2.4.1f	The Port Bit Rate data field **shall** be a 3-bit code, indicating the bit rate of the I/O port that initiated the RCCOW. The codes are as follows: 75 BPS Code 000 2400 BPS Code 100 300 BPS Code 001 4800 BPS Code 101 600 BPS Code 010 16000 BPS Code 110 1200 BPS Code 011 SPARE Code 111	**Met**
245	5.2.2.2.4.1g	The Port #1 (#5) Number in Guard List **shall** contain a binary count from 0 to 15, which **shall** be the count of guard numbers in port #1 (#5).	**Met**
246	5.2.2.2.4.1h	The Port #2 (#6) Number in Guard List **shall** contain a binary count from 0 to 15, which **shall** be the count of guard numbers in port #2 (#6).	**Not Applicable (Note)**
Note: The terminal has one I/O port.			

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
247	5.2.2.2.4.1i	The Port #3 (#7) Number in Guard List **shall** contain a binary count from 0 to 15, which **shall** be the count of guard numbers in port #3 (#7).	**Not Applicable (Note)**
248	5.2.2.2.4.1j	The Port #4 (#8) Number in Guard List **shall** contain a binary count from 0 to 15, which **shall** be the count of guard numbers in port #4 (#8).	
Note: The terminal has one I/O port.			
249	5.2.2.2.4.1k	The Port #1 (#5) Guard List Change Flag, when set, **shall** indicate that the terminal has changed the port #1 (#5) guard list.	**Met**
250	5.2.2.2.4.1l	The Port #2 (#6) Guard List Change Flag, when set, **shall** indicate that the terminal has changed the port #2 (#6) guard list.	**Not Applicable (Note)**
251	5.2.2.2.4.1m	The Port #3 (#7) Guard List Change Flag, when set, **shall** indicate that the terminal has changed the port #3 (#7) guard list.	
252	5.2.2.2.4.1n	The Port #4 (#8) Guard List Change Flag, when set, **shall** indicate that the terminal has changed the port #4 (#8) guard list.	
Note: The terminal has one I/O port.			
253	5.2.2.2.4.1o	The Frame Format field **shall** contain the frame format in use by the terminal.	**Met**
256	5.2.2.2.4.2.1a(1)	The precedence field **shall** contain the precedence of the RCCOW to be transmitted.	**Met**
257	5.2.2.2.4.2.1a(2)	This bit, when set, **shall** indicate the message is a higher precedence than the precedence level of the RCCOW assignment field in the present frame's CCOW.	**Met**
258	5.2.2.2.4.2.1b	The Initial Entry Flag when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on (AC Mode only).	**Met**
259	5.2.2.2.4.2.1c	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted (AC Mode only).	**Met**
260	5.2.2.2.4.2.1d	The Requesting Party field **shall** contain the user number of the terminal port that initiated the RCCOW.	**Met**
261	5.2.2.2.4.2.1e	The Requested Party field **shall** contain the user number of the terminal port to which the RCCOW is directed.	**Met**
262	5.2.2.2.4.2.1f	The Data Block field **shall** be composed of four bytes of data.	**Met**
263	5.2.2.2.4.2.2a	The Precedence field **shall** contain the precedence of the RCCOW to be transmitted.	**Met**
264	5.2.2.2.4.2.2b	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on (AC Mode only).	**Met**
265	5.2.2.2.4.2.2c	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted (AC Mode only).	**Met**
266	5.2.2.2.4.2.2d	The Requested Party field **shall** contain the user number of the terminal port that initiated the RCCOW.	**Met**
267	5.2.2.2.4.2.2e	The Requested Party field **shall** contain the user number of the terminal port to which the RCCOW is directed.	**Met**
268	5.2.2.2.4.2.2f	The Data Block field **shall** be composed of four bytes of data.	**Met**
269	5.2.2.2.4.3a	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	**Met**
270	5.2.2.2.4.3b	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
271	5.2.2.2.4.3c	The Requesting Party field **shall** contain the terminal's base address (port #1).	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
272	5.2.2.2.4.3d	The 9.6-kbps Flag, when set, **shall** indicate that the terminal requests a 9.6-kbps link test.	**Met**
273	5.2.2.2.4.3e	The 19.2-kbps Flag, when set, **shall** indicate that the terminal requests a 19.2-kbps link test.	**Met**
274	5.2.2.2.4.3f	The 32-kbps Flag, when set, **shall** indicate that the terminal requests a 32-kbps link test.	**Met**
275	5.2.2.2.4.4a	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	**Not Applicable (Note)**
Note: This RCCOW cannot be the Initial Entry Flag. (It is not possible for it to be the first RCCOW created after the unit power has been turned on.)			
276	5.2.2.2.4.4b	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
277	5.2.2.2.4.4c	The Requesting Party field **shall** contain the user number of the terminal port.	**Met**
278	5.2.2.2.4.5a	The Precedence field **shall** contain the precedence of the RCCOW to be transmitted.	**Met**
279	5.2.2.2.4.5b	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	**Met**
280	5.2.2.2.4.5c	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
281	5.2.2.2.4.5d	The Requesting Party field **shall** contain the user number of the terminal.	**Met**
282	5.2.2.2.4.5e(1)	The Time field **shall** contain the estimated time out-of-service for the port.	**Met**
283	5.2.2.2.4.5e(2)	This data **shall** consist of 2-bit chronological exponent and a 6-bit binary time field.	**Met**
284	5.2.2.2.4.5f(1)	The Out-of-Service Code field **shall** contain the reason code for going out of service.	**Met**
285	5.2.2.2.4.5f(2)	The Out-of-Service Code **shall** have a BCD format.	**Met**
286	5.2.2.2.4.5f(3)	Valid codes **shall** range from 0 to 99 and are operationally assigned.	**Met**
287	5.2.2.2.4.6(1)	The terminal **shall** generate the Information Report RCCOW message in response to the Information Request CCOW from the channel controller.	**Met**
288	5.2.2.2.4.6(2)	A terminal that, for operational reasons, is prohibited from responding to the Information Request CCOWs **shall** be able to report this limitation to the channel controller.	**Not Testable (Note)**
Note: Network assigned. Not testable.			
289	5.2.2.2.4.6(3)	The terminal Information Report response message **shall** be generated in accordance with 5.2.2.2.4.6.1, 5.2.2.2.4.6.2, figure 20-6 [of the MIL-STD], and the data fields defined below.	**Met**
290	5.2.2.2.4.6a	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on (AC Mode only).	**Met**
291	5.2.2.2.4.6b	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted (AC Mode only).	**Met**
292	5.2.2.2.4.6c	The Responding Party field **shall** contain the user number of the port.	**Met**
293	5.2.2.2.4.6d(1)	The Response Code field **shall** contain the response code to the information request.	**Met**
294	5.2.2.2.4.6d(2)	Valid data **shall** range from: 1 to 16383 (AC Mode) and 1 to 255 (DC Mode) and are operationally assigned.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
295	5.2.2.2.4.6.1(1)	When the terminal receives an Information Request command from the channel controller, it **shall** respond with an Information Report message before sending any other RCCOW message.	**Met**
296	5.2.2.2.4.6.1(2)	The terminal (operator) **shall** respond to the information request by sending an operationally assigned code in the Response Code field of the Information Report message.	**Met**
297	5.2.2.2.4.6.2(1)	When a terminal port has been constantly keyed for 17 minutes, and has not been configured for legal constant key operation, it **shall** automatically generate and send this Information Report to the channel controller.	**Met**
298	5.2.2.2.4.6.2(2)	This message **shall** be sent before sending any other RCCOW message.	**Met**
299	5.2.2.2.4.6.2(3)	When a port's constant transmit capability is enabled, the terminal **shall** not output receive data for the port, regardless of whether the terminal port is keyed or not keyed.	**Not Applicable (Note)**
Note: This terminal does not have an optional constant key enable setting.			
300	5.2.2.2.4.6.2(4)	An Information Report Response code of 200 **shall** be sent by the terminal in this message.	**Met**
301	5.2.2.2.4.6.2(5)	The Constant Key Alarm Information Report capability **shall** function when the terminal is operating in either the AC or DC mode.	**Met**
302	5.2.2.2.4.7a	The Precedence **shall** contain the precedence of the RCCOW.	**Met**
303	5.2.2.2.4.7b	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	**Met**
304	5.2.2.2.4.7c	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
305	5.2.2.2.4.7d	The Requesting Party field **shall** contain the user number of the terminal port.	**Met**
306	5.2.2.2.4.7e	The Cancel Call Flag, when set, **shall** indicate that the requesting party wants its two-party request cancelled.	**Met**
307	5.2.2.2.4.7f	The Requested Party field **shall** contain the user number of the terminal port that has been requested for communications.	**Met**
308	5.2.2.2.4.7g(1)	The Configuration Code field **shall** contain the configuration code of the terminal port that initiated the RCCOW.	**Met**
309	5.2.2.2.4.7g(2)	The data **shall** have a BCD format.	**Met**
310	5.2.2.2.4.7g(3)	Valid codes **shall** range from 1 to 99 and are operationally assigned.	**Met**
311	5.2.2.2.4.7h(1)	The Contention Report field **shall** contain a binary count of how may times the terminal port has transmitted two-party or conference request RCCOWs without receiving a CALL ACK.	**Met**
312	5.2.2.2.4.7h(2)	The counter **shall** be reset each time a CALL ACK is received for either of these two RCCOWs or when a Status Report A RCCOW is sent and a CALL ACK is received for the status report.	**Met**
313	5.2.2.2.4.8.1(1)	If the number of requested users is more than one, two RCCOWS **shall** be created.	**Met**
314	5.2.2.2.4.8.1(2)	The second of these **shall** be the Conference Party List.	**Met**
315	5.2.2.2.4.8.1a	The Precedence field **shall** contain the precedence of the RCCOW.	**Met**
316	5.2.2.2.4.8.1b	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	**Met**
317	5.2.2.2.4.8.1c	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
318	5.2.2.2.4.8.1d	The Requesting Party field **shall** contain the user number of the terminal port.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
319	5.2.2.2.4.8.1e	The Cancel Call Flag, when set, **shall** indicate that the requesting party wants its conference request cancelled.	**Met**
320a	5.2.2.2.4.8.1f(1)	The List Flag, when set, **shall** indicate that the conference request is for more than two users;…	**Met**
320b	5.2.2.2.4.8.1f(2)	…therefore, the controller **shall** request the conference party list RCCOW with and RCCOW assignment.	**Not Applicable (Note)**
Note: This is a Channel Controller requirement and, therefore, is not applicable to the terminal.			
321	5.2.2.2.4.8.1g	The Requested Party #1 field **shall** contain the user number of the terminal port that has been requested for communication.	**Met**
322	5.2.2.2.4.8.1h(1)	The Contention Report field **shall** contain a binary count of how may times the terminal port has transmitted two party or conference request RCCOWs without receiving a CALL ACK.	**Met**
323	5.2.2.2.4.8.1h(2)	The counter **shall** be reset each time a CALL ACK is received for either of these two RCCOWs or when a Status Report A RCCOW is sent and a CALL ACK is received for the status report.	**Met**
324	5.2.2.2.4.8.1i(1)	The Time field **shall** contain the estimated time for which the communications circuit is needed.	**Met**
325	5.2.2.2.4.8.1i(2)	The data **shall** consist of a 2-bit chronological exponent and a 6-bit binary time field.	**Met**
326	5.2.2.2.4.8.1j(1)	The Configuration Code field **shall** contain the configuration code of the port.	**Met**
327	5.2.2.2.4.8.1j(2)	The data **shall** have a BCD format.	**Met**
328	5.2.2.2.4.8.1j(3)	Valid codes **shall** range from 1 to 99 and are operationally assigned.	**Met**
329	5.2.2.2.4.8.2	The terminal **shall** respond to the controller's direction by creating an RCCOW whose fields are as follows:	**Met**
330	5.2.2.2.4.8.2a	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	**Not Applicable (Note)**
Note: This RCCOW cannot be the Initial Entry Flag. (It is not possible for it to be the first RCCOW created after the unit power has been turned on.)			
331	5.2.2.2.4.8.2b	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
332	5.2.2.2.4.8.2c	The Requested Party #2 field **shall** define the user number of the second requested party with which the conference is to be established.	**Met**
333	5.2.2.2.4.8.2d(1)	The Requested Party #3 field **shall** define the user number of the third requested party with which the conference is to be established.	**Met**
334	5.2.2.2.4.8.2d(2)	If the field is not used, all bits **shall** be set to zero (0).	**Met**
335	5.2.2.2.4.8.2e(1)	The Requested Party #4 field **shall** define the user number of the fourth requested party with which the conference is to be established.	**Met**
336	5.2.2.2.4.8.2e(2)	If the field is not used, all bits **shall** be set to zero (0).	**Met**
337	5.2.2.2.4.8.2f(1)	The Requested Party #5 field **shall** define the user number of the fifth requested party with which the conference is to be established.	**Met**
338	5.2.2.2.4.8.2f(2)	If the field is not used, all bits **shall** be set to zero (0).	**Met**
339	5.2.2.2.4.8.3(1)	If the number of requested users is three or greater, two RCCOWs **shall** be created.	**Met**
340	5.2.2.2.4.8.3(2)	The second of these **shall** be the conference party list.	**Met**
341	5.2.2.2.4.8.3a(1)	The Precedence field **shall** contain the precedence of the RCCOW.	**Met**
342	5.2.2.2.4.8.3a(2)	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	**Met**
343	5.2.2.2.4.8.3a(3)	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
344	5.2.2.2.4.8.3a(4)	The Requesting Party field **shall** contain the user number of the terminal port.	**Met**
345	5.2.2.2.4.8.3a(5)	The Cancel Call Flag, when set, **shall** indicate that the requesting party wants its conference request cancelled.	**Met**
346	5.2.2.2.4.8.3a(6)	The List Flag, when set, **shall** indicate that the conference request is for more than two users; therefore, the controller **shall** request the conference party list RCCOW with an RCCOW assignment.	**Met**
347	5.2.2.2.4.8.3a(7)	The Requested Party #1 field **shall** contain the user number of the terminal port that has been requested for communication.	**Met**
348	5.2.2.2.4.8.3a(8)a	The Contention Report field **shall** contain a binary count of how may times the terminal port has transmitted two party or conference request RCCOWs without receiving a CALL ACK.	**Met**
349	5.2.2.2.4.8.3a(8)b	The counter **shall** only be reset each time a CALL ACK is received for either of these two RCCOWs or when a Status Report A RCCOW is sent and a CALL ACK is received for the status report.	**Met**
350	5.2.2.2.4.8.3a(9)	The Requested Party #2 field **shall** contain the user number of the terminal port that has been requested for communication.	**Met**
351	5.2.2.2.4.8.3a(10)a	The Time field **shall** contain the estimated time for which the communications circuit is needed.	**Met**
352	5.2.2.2.4.8.3a(10)b	The data **shall** consist of a 2-bit chronological exponent and a 6-bit binary time field.	**Met**
353	5.2.2.2.4.8.3a(11)a	The Configuration Code field **shall** contain the configuration code of the port.	**Met**
354	5.2.2.2.4.8.3a(11)b	The data **shall** have a BCD format.	**Met**
355	5.2.2.2.4.8.3a(11)c	Valid codes **shall** range from 1 to 99 and are operationally assigned.	**Met**
356	5.2.2.2.4.8.3b(1)	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	**Not Applicable (Note)**
Note: This RCCOW cannot be the Initial Entry Flag. (It is not possible for it to be the first RCCOW created after the unit power has been turned on.)			
357	5.2.2.2.4.8.3b(2)	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
358	5.2.2.2.4.8.3b(3)a	The Requested Party #1 to #4 fields **shall** contain user numbers for up to four additional terminal ports, for which the conference is requested.	**Met**
359	5.2.2.2.4.8.3b(3)b	All bits in unused fields **shall** be set to zero (0).	**Met**
360	5.2.2.2.4.9	This RCCOW **shall** be generated by a terminal in response to a Report Link Test Results assignment in a CCOW's Assignment field.	**Met**
361	5.2.2.2.4.9a	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	**Met**
362	5.2.2.2.4.9b	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
363	5.2.2.2.4.9c	The Reporting Party field **shall** contain the terminal's base user number.	**Met**
364	5.2.2.2.4.9d	The Symbol Errors field **shall** contain the count of symbol errors received during the link test.	**Met**
365	5.2.2.2.4.9e	The Symbol Erasures field **shall** contain the count of data symbols erased due to pulsed radio frequency interference (RFI) during a link test.	**Met**
366	5.2.2.2.4.9f	The Missed Acquisitions field **shall** contain the count of missed acquisitions during the link test.	**Met**
367	5.2.2.2.4.9g	The Bits Tested field **shall** contain the length of the link test in bits tested.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
368	5.2.2.2.4.9h	The 9.6-kbps Flag, when set, **shall** indicate that the link test was performed at 9.6 kbps.	**Met**
369	5.2.2.2.4.9i	The 19.2-kbps Flag, when set, **shall** indicate that the link test was performed at 19.2 kbps.	**Met**
370	5.2.2.2.4.9j	The 32-kbps Flag, when set, **shall** indicate that the link test was performed at 32 kbps.	**Met**
371	5.2.2.2.4.9k	The Contention Flag, when set, **shall** indicate that slot contention was detected during the link test.	**Met**
372	5.2.2.2.4.10	The STATUS REPORT A RCCOW **shall** contain status information that is not contained in Status Report B.	**Met**
373	5.2.2.2.4.10a	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	**Met**
374	5.2.2.2.4.10b	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
375	5.2.2.2.4.10c	The Reporting Party field **shall** contain the base user number of the terminal assigned to create the RCCOW.	**Met**
376	5.2.2.2.4.10d(1)	The Port #1 to Port #4 (or Port #5 to Port #8) fields **shall** contain a code that indicates the bit rate for each port.	**Met**
377	5.2.2.2.4.10d(2)	The bit rate code assignments **shall** be as follows: 75 BPS Code 000 2400 BPS Code 100 300 BPS Code 001 4800 BPS Code 101 600 BPS Code 010 16000 BPS Code 110 1200 BPS Code 011 SPARE Code 111	**Met**
378	5.2.2.2.4.10e	The Port #1 to Port #4 (or Port #5 to Port #8) Slot Assignment Number fields **shall** contain the slot number (binary) to which each port is assigned.	**Met**
379	5.2.2.2.4.10f	The Number of Users In Guard List field **shall** contain the total count of guarded numbers in all terminal port guard lists.	**Met**
380	5.2.2.2.4.10g(1)	The Contention Report field **shall** contain a binary count of the sum of all times that all ports within a terminal have transmitted Call Request RCCOWs (Two party or conference) without receiving CALL ACKs.	**Met**
381	5.2.2.2.4.10g(2)	All individual port contention counters within the terminal **shall** be cleared when a CALL ACK is received for the RCCOW.	**Met**
382	5.2.2.2.4.10h	The Special Frame Format Flag, when set, **shall** indicate that this terminal is operating with a frame format other than the one transmitted in a master frame CCOW.	**Met**
383	5.2.2.2.4.10i	The Frequency Change Flag, when set, **shall** indicate that this terminal is capable of frequency switching.	**Met**
384	5.2.2.2.4.10j	The Full Duplex Flag, when set, **shall** indicate that this terminal is operating with a full-duplex receiver/transmitter.	**Met**
Note: The terminal is half-duplex, only.			
385	5.2.2.2.4.11	A terminal that has channel control capability **shall** transmit the Acknowledge Channel Control Request to acknowledge the controller's channel control handover request CCOW.	**Not Applicable (Note)**
386	5.2.2.2.4.11a	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by a terminal after its power has been turned on.	
387	5.2.2.2.4.11b	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	
388	5.2.2.2.4.11c	The Data Transfer Flag, when set, **shall** indicate that acknowledging terminal requires additional system configuration information.	
Note: Optional requirements not implemented in this terminal.			

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
389	5.2.2.2.4.11d	The Ready Flag, when set, **shall** indicate that acknowledging terminal is ready to perform the handover.	**Not Applicable (Note)**
390	5.2.2.2.4.11e	The Request Control Flag, when set, **shall** indicate that acknowledging terminal is requesting a channel control handover.	
391	5.2.2.2.4.11f	The Channel Frequency field **shall** contain the RF channel frequency number, as shown in appendix C, for which control is to be handed over.	
392	5.2.2.2.4.11g	The Current Time 2-byte field **shall** contain the current time in hours and minutes, as shown in figure 20-12 [of the MIL-STD].	
393	5.2.2.2.4.11h	The Handover Time 2-byte field **shall** contain the current time in hours and minutes as shown in figure 20-12 [of the MIL-STD].	
Note: Optional requirements not implemented in this terminal.			
394	5.2.2.2.4.12(1)	The terminal **shall** generate the Guard List Report RCCOW message in response to a Guard List Report assignment directed to it by the channel controller.	**Met**
395	5.2.2.2.4.12(2)	Two types of Guard List Reports are defined: (1) Type A, which is mandatory and **shall** be used by 16-bit address terminals, and (2) Type B, which is optional and used by 14-bit address terminals.	**Met**
396	5.2.2.2.4.12.1(1)	The Guard List Report Type A is mandatory and **shall** be used by 16-bit address terminals.	**Met**
397	5.2.2.2.4.12.1(2)	The Guard List Report Type A **shall** identify a group of three addresses from the terminal's guard list.	**Met**
398	5.2.2.2.4.12.1(3)	The group of addresses to be reported **shall** be as defined by the controller in the CCOW's RCCOW Assignment field.	**Met**
399	5.2.2.2.4.12.1(4)	The Guard List Report Type A messages **shall** be developed in accordance with figure 20-13 [of the MIL-STD] and the data field definitions described below.	**Met**
400	5.2.2.2.4.12.1a	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by the terminal after its power as been turned on.	**Met**
401	5.2.2.2.4.12.1b	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
402	5.2.2.2.4.12.1c	The Port Guarding #1 field **shall** define the terminal port number (1 through 16) that guards the address defined by the Guarded #1 field of this message.	**Met**
403	5.2.2.2.4.12.1d	The Port Guarding #2 field **shall** define the terminal port number (1 through 16) that guards the address defined by the Guarded #2 field of this message.	**Met**
404	5.2.2.2.4.12.1e	The Port Guarding #3 field **shall** define the terminal port number (1 through 16) that guards the address defined by the Guarded #3 field of this message.	**Met**
405	5.2.2.2.4.12.1f	The Guarded #1 field **shall** contain the number 1 address, as reported by this message, and which is guarded by the terminal port defined in Port Guarding #1.	**Met**
406	5.2.2.2.4.12.1g	The Guarded #2 field **shall** contain the number 1 address, as reported by this message, and which is guarded by the terminal port defined in Port Guarding #2.	**Met**
407	5.2.2.2.4.12.1h	The Guarded #3 field **shall** contain the number 1 address, as reported by this message, and which is guarded by the terminal port defined in Port Guarding #3.	**Met**
408	5.2.2.2.4.12.1(5)	There **shall** be no gaps (empty fields) within the list.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
409	5.2.2.2.4.12.1(6)	The list **shall** then be reported in groups as specified by the table (page 89 [of the MIL-STD]) and requested in a RCCOW assignment.	**Met**
410	5.2.2.2.4.12.2	The Guard List Report Type B (Optional) RCCOW **shall** be generated by a terminal to Report four numbers in its guard lists in response to a Guard List Report assignment in the RCCOW Assignment field of a CCOW.	**Met**
411	5.2.2.2.4.12.2a	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by the terminal after its power as been turned on.	**Met**
412	5.2.2.2.4.12.2b	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
413	5.2.2.2.4.12.2c	The Guarded #1 to #4 (or Guarded #5 to #8) fields **shall** contain up to four guard numbers.	**Met**
414	5.2.2.2.4.12.2e(1)	The Port Guarding #1 to #4 (or Port Guarding #5 to #8) fields **shall** contain a code that identifies the terminal port number corresponding to each of the reported guard numbers.	**Met**
415	5.2.2.2.4.12.2e(2)	The coding **shall** be as follows: Field Code = 0 Guarded = 00 Address = 1 Field Code = 0 Guarded = 01 Address = 2 Field Code = 0 Guarded = 10 Address = 3 Field Code = 0 Guarded = 11 Address = 4 Field Code = 1 Guarded = 00 Address = 5 Field Code = 1 Guarded = 01 Address = 6 Field Code = 1 Guarded = 10 Address = 7 Field Code = 1 Guarded = 11 Address = 8	**Met**
416	5.2.2.2.4.12.3(1)	The terminal **shall** respond to this direction with the RCCOW messages developed in accordance with 5.2.2.2.4.12.2 a through e.	**Met**
417	5.2.2.2.4.12.3(2)	Up to 15 different guard list numbers **shall** be stored in the 20 possible locations (one guard list number per location) and reported, as shown in the following table (see page 91 [of the MIL-STD]).	**Met**
418	5.2.2.2.4.13a	The Initial Entry Flag, when set, **shall** indicate that this is the first RCCOW created by the terminal after power has been turned on.	**Met**
419	5.2.2.2.4.13b	The Stored Call Flag, when set, **shall** indicate that the terminal has another RCCOW stored in queue to be transmitted.	**Met**
420	5.2.2.2.4.13c	The Requesting User field **shall** contain the user number of the terminal port.	**Met**
421	5.2.2.2.4.13d	The Requested User #1 field **shall** define the ID number of the first user who is paged.	**Met**
422	5.2.2.2.4.13e	The Requested User #2 field **shall** define the ID number of the second user who is paged.	**Met**
423	5.2.2.2.4.13f	The Requested User #3 field **shall** define the ID number of the third user who is paged.	**Met**
424	5.2.2.3	The following factors **shall** affect the choice of transmit time for RCCOW messages: Transmit enable, Dedicated RCCOW access, and Random RCCOW access.	**Not Testable (Note)**
425	5.2.2.3.1(1)	The terminal **shall** perform various checks to determine if RCCOW transmit is enabled.	
426	5.2.2.3.1(2)	If so, the terminal **shall** move into either the dedicated or random RCCOW access selection process.	
Note: General statements/definitions. Not testable.			
427	5.2.2.3.1(3)	The checks, and the possible results, are listed below in the order in which they **shall** occur:	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
428	5.2.2.3.1a(1)	When a terminal fails to receive a CCOW, RCCOW transmission **shall** be inhibited in the next frame.	**Met**
429	5.2.2.3.1a(2)	After a succession of six lost CCOWs, the terminal **shall** reenter the CCOW acquisition process.	**Met**
430	5.2.2.3.1b	If a terminal does not have range lock, RCCOW transmissions **shall** be inhibited.	**Met**
431	5.2.2.3.1c	RCCOW transmissions **shall** be inhibited in any frame in which a terminal transmit inhibit condition occurs.	**Met**
432	5.2.2.3.1d(1)	The terminal **shall** reach this point when it has been determined that an RCCOW inhibit condition does not exist.	**Met**
433	5.2.2.3.1d(2)	The RCCOW assignment code **shall** then be tested, and the terminal **shall** either enter dedicated RCCOW access or random RCCOW access.	**Met**
434	5.2.2.3.2(1)	Dedicated RCCOW access **shall** be entered when the RCCOW assignment requests a specified terminal to transmit an RCCOW.	**Met**
435	5.2.2.3.2(2)	The terminal **shall** halt all other RCCOW processing to reply immediately with the specified RCCOW in the next frame.	**Met**
436	5.2.2.3.2(3)	The first step **shall** be to save data that states which RCCOW was being processed or transmitted in the last frame.	**Met**
437	5.2.2.3.2(4)	The terminal **shall** then determine the specific RCCOW assignment to execute.	**Met**
438	5.2.2.3.2(5)	The assignments, and possible actions, **shall** be as follows:	**Met**
439	5.2.2.3.2a(1)	When a terminal receives the Conference List Report RCCOW assignment, the terminal **shall** transmit its conference list.	**Met**
440	5.2.2.3.2a(2)	This RCCOW **shall** be created by a conference request entry at the terminal.	**Met**
441	5.2.2.3.2a(3)	The terminal **shall** then perform a check to determine if any other RCCOWs are stored in queue.	**Met**
442	5.2.2.3.2a(4)	If there are, the Stored Call Flag **shall** be set.	**Met**
443	5.2.2.3.2a(5)	The message **shall** then be formatted and transmitted over the RF channel.	**Met**
444	5.2.2.3.2a(6)	The terminal **shall** not delete this RCCOW from the transmitting queue until a positive CALL ACK is received.	**Met**
445	5.2.2.3.2a(7)	If it is not acknowledged, it **shall** remain in the queue and wait for another Conference List Report RCCOW assignment.	**Met**
446	5.2.2.3.2b(1)	When a terminal receives the Dedicated RCCOW Slot RCCOW assignment, the terminal **shall** transmit any RCCOW it has in queue.	**Met**
447	5.2.2.3.2b(2)	If the terminal does not have an RCCOW in queue, it **shall** create and transmit a Status Report A.	**Met**
448	5.2.2.3.2b(3)	Since the CCOW does not request any particular RCCOW, the terminal **shall** use random RCCOW access processing to find an RCCOW to transmit.	**Met**
449	5.2.2.3.2b(4)	Transmit processing **shall** also be handled by the random RCCOW access process (as described in 5.2.2.3.3).	**Met**
450	5.2.2.3.2c(1)	When a terminal receives the Status Report A: Group 1 or Status Report A: Group 2 RCCOW assignment, the terminal **shall** transmit the corresponding Status Report A.	**Met**
451a	5.2.2.3.2c(2)	This RCCOW **shall** be transmitted only once per assignment…	**Met**
451b	5.2.2.3.2c(3)	…and **shall** be deleted from the queue after its first transmission.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
452	5.2.2.3.2d(1)	When a terminal receives the Status Report B: Group 1 or Status Report B: Group 2 RCCOW assignment, the terminal **shall** transmit the corresponding Status Report B.	**Met**
453a	5.2.2.3.2d(2)	This RCCOW **shall** be transmitted only once per assignment…	**Met**
453b	5.2.2.3.2d(3)	…and **shall** be deleted from the queue after its first transmission.	**Met**
454	5.2.2.3.2e(1)	When a terminal receives the Report Link Test Results RCCOW assignment, the terminal **shall** transmit a Link Test Results RCCOW.	**Met**
455a	5.2.2.3.2e(2)	This RCCOW **shall** be transmitted only once per assignment…	**Met**
455b	5.2.2.3.2e(3)	…and **shall** be deleted from the queue after its first transmission.	**Met**
456	5.2.2.3.2f(1)	When a terminal receives the Guard List Report: Group 1 RCCOW assignment, the terminal **shall** transmit the Guard List Report: Group 1 message.	**Met**
457a	5.2.2.3.2f(2)	This RCCOW **shall** be transmitted only once per assignment…	**Met**
457b	5.2.2.3.2f(3)	…and **shall** be deleted from the queue after its first transmission.	**Met**
458	5.2.2.3.2g(1)	When a terminal receives the Guard List Report: Group 2 RCCOW assignment, the terminal **shall** transmit the Guard List Report: Group 2 message.	**Met**
459a	5.2.2.3.2g(2)	This RCCOW **shall** be transmitted only once per assignment…	**Met**
459b	5.2.2.3.2g(3)	…and **shall** be deleted from the queue after its first transmission.	**Met**
460	5.2.2.3.2h(1)	When a terminal receives the Guard List Report: Group 3 RCCOW assignment, the terminal **shall** transmit the Guard List Report: Group 3 message.	**Met**
461a	5.2.2.3.2h(2)	This RCCOW **shall** be transmitted only once per assignment…	**Met**
461b	5.2.2.3.2h(3)	…and **shall** be deleted from the queue after its first transmission.	**Met**
462	5.2.2.3.2i(1)	When a terminal receives the Guard List Report: Group 4 RCCOW assignment, the terminal **shall** transmit the Guard List Report: Group 4 message.	**Met**
463a	5.2.2.3.2i(2)	This RCCOW **shall** be transmitted only once per assignment…	**Met**
463b	5.2.2.3.2i(3)	…and **shall** be deleted from the queue after its first transmission.	**Met**
464	5.2.2.3.2j(1)	When a terminal receives the Guard List Report: Group 5 RCCOW assignment, the terminal **shall** transmit the Guard List Report: Group 5 message.	**Met**
465a	5.2.2.3.2j(2)	This RCCOW **shall** be transmitted only once per assignment…	**Met**
465b	5.2.2.3.2j(3)	…and **shall** be deleted from the queue after its first transmission.	**Met**
466	5.2.2.3.2k	When a terminal receives the RCCOW Inhibit RCCOW assignment, the terminal **shall** inhibit its RCCOW transmission in this frame.	**Met**
467	5.2.2.3.3	The terminal **shall** search its RCCOW queues to select an RCCOW for transmission.	**Not Testable (Note)**
468	5.2.2.3.3a(1)	The terminal **shall** perform specific checks to determine an RCCOW to transmit.	
Note: General statements/definitions. Not testable.			
469	5.2.2.3.3a(2)	The checks **shall** be performed in the following sequence:	**Met**
470	5.2.2.3.3a.1(1)	The RCCOW assignment **shall** be checked to determine if this frame is dedicated to another terminal.	**Met**
471	5.2.2.3.3a.1(2)	If it is, the terminal **shall** inhibit RCCOW transmission.	**Met**
472	5.2.2.3.3a.1(3)	If the frame is not dedicated, the next check **shall** be performed.	**Met**
473	5.2.2.3.3a.2(1)	The terminal **shall** check to determine if it transmitted a dedicated RCCOW in the last frame.	**Met**
474a	5.2.2.3.3a.2(2)	If a dedicated RCCOW was transmitted, it **shall** be cleared from the queue (except for a conference list report),…	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
474b	5.2.2.3.3a.2(3)	…and any RCCOW that was interrupted by the dedicated RCCOW **shall** be recovered for transmission.	**Met**
475	5.2.2.3.3a.2(4)	The next check **shall** then be performed.	**Met**
476	5.2.2.3.3a.3(1)	The terminal **shall** check to determine if there is an Acknowledge Channel Control Request RCCOW to transmit.	**Not Applicable (Note)**
477	5.2.2.3.3a.3(2)	If there is, the terminal **shall** check for an RCCOW with a precedence.	
Note: Optional requirements not implemented in the terminal.			
478	5.2.2.3.3a.3(3)	If there is not an Acknowledge Channel Control Request RCCOW, the terminal **shall** check for an RCCOW with a precedence.	**Met**
479	5.2.2.3.3a.3(4)	When the RCCOW with the highest precedence has been found, the terminal **shall** determine when to transmit the RCCOW.	**Met**
480	5.2.2.3.3a.3(5)	If there is not an RCCOW with a precedence, the terminal **shall** check for an RCCOW without a precedence.	**Met**
481	5.2.2.3.3a.3(6)	If an RCCOW without a precedence is found, the terminal **shall** determine when to transmit the RCCOW.	**Met**
482	5.2.2.3.3a.3(7)	If more than one RCCOW is found at any level, the first one transmitted **shall** be selected on a first in/first out basis.	**Met**
483	5.2.2.3.3b(1)	To determine when and how often to transmit a selected RCCOW, the terminal **shall** use decision processes based on the type of RCCOW to be transmitted.	**Met**
484	5.2.2.3.3b(2)	A first-in/first-out decision process **shall** be used when more than one RCCOW of the same priority or precedence level exists in the queue.	**Met**
485	5.2.2.3.3b(3)	The types of RCCOWS in their order of importance **shall** be as follows:	**Met**
486	5.2.2.3.3b.1(1)	The Dedicated RCCOW type of RCCOW is requested by the RCCOW assignment and **shall** have the highest priority to be transmitted.	**Met**
487	5.2.2.3.3b.1(2)	It **shall** pre-empt the transmission of any other RCCOW.	**Met**
488a	5.2.2.3.3b.1(3)	The Dedicated RCCOW **shall** be transmitted only once…	**Met**
488b	5.2.2.3.3b.1(4)	…and **shall** be deleted from the queue (except for conference party list) after its first transmission.	**Met**
489	5.2.2.3.3b.1(5)	Any RCCOW that was pre-empted from transmission **shall** be recovered to renew the transmit processing.	**Met**
490	5.2.2.3.3b.2(1)	The Acknowledge Channel Control Request RCCOW type of RCCOW **shall** have the second highest priority to be transmitted.	**Not Applicable (Note)**
491	5.2.2.3.3b.2(2)	It **shall** pre-empt the transmission of any RCCOW except for a dedicated RCCOW.	
492	5.2.2.3.3b.2(3)	The RCCOW **shall** be transmitted immediately upon appearing in queue.	
493	5.2.2.3.3b.2(4)	The RCCOW **shall** remain in queue for a random (less than 20) number of frames.	
494	5.2.2.3.3b.2(5)	If the terminal does not receive a CALL ACK, the RCCOW **shall** be transmitted again, still remaining in queue for a random (less than 20) number of frames.	
495	5.2.2.3.3b.2(6)	If the second transmission does not receive a CALL ACK, the RCCOW **shall** be cleared from the queue, requiring a re-entry for further transmission.	
496	5.2.2.3.3b.2(7)	If a CALL ACK is received any time during transmit processing, the RCCOW **shall** be cleared from the queue.	
Note: Optional requirements not implemented in the terminal.			
497	5.2.2.3.3b.3(1)	(RCCOW with a precedence) This **shall** have a precedence contained within it, indicating the message's priority.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
498	5.2.2.3.3b.3(2)	This type of RCCOW **shall** be as illustrated in figures 20-2, 20-5, 20-7, and 20-8 [of the MIL-STD].	**Met**
499	5.2.2.3.3b.3(3)	This type of RCCOW **shall** have the third highest priority to be transmitted.	**Met**
500	5.2.2.3.3b.3(4)	It **shall** preempt the transmission of any RCCOW with a lower precedence (highest precedence RCCOW **shall** always be transmitted first), as well as any RCCOW with no precedence.	**Met**
501	5.2.2.3.3b.3a(1)	The decision to transmit this type of RCCOW **shall** be based on a minimum frame precedence value contained in the RCCOW assignment.	**Met**
502	5.2.2.3.3b.3a(2)	The RCCOW **shall** be transmitted for the first time in any frame in which its precedence is equal to or greater than the minimum frame precedence.	**Met**
503	5.2.2.3.3b.3a(3)	The RCCOW **shall** remain in queue for a random (less than 20) number of frames.	**Met**
504	5.2.2.3.3b.3a(4)	If the terminal does not receive a CALL ACK, it **shall** undergo more checking to determine when the second transmission **shall** take place.	**Met**
505	5.2.2.3.3b.3b(1)	The second transmission **shall** depend on the frame precedence in which the first transmission took place.	**Met**
506	5.2.2.3.3b.3b(2)	If the first transmission took place when the RCCOW precedence and the frame precedence were equal, the second transmission **shall** occur in the first frame in which the RCCOW precedence is equal to or greater than the frame precedence.	**Met**
507	5.2.2.3.3b.3b(3)	If the first transmission took place when the RCCOW precedence was greater than the frame precedence, the next eight frames **shall** be checked to find a frame in which the RCCOW precedence and frame precedence are equal.	**Met**
508	5.2.2.3.3b.3b(4)	If an equal precedence frame is found within the eight-frame check period, the second transmission of the RCCOW **shall** occur in that frame.	**Met**
509	5.2.2.3.3b.3b(5)	If an equal precedence frame does not occur, the second transmission of the RCCOW **shall** occur in the next frame, after the eight-frame check period, where the RCCOW precedence is equal to or greater than the frame precedence.	**Met**
510	5.2.2.3.3b.3c(1)	After the second transmission, the RCCOW **shall** remain in queue for a random (less than 20) number of frames.	**Met**
511	5.2.2.3.3b.3c(2)	If the second transmission does not receive a CALL ACK, the RCCOW **shall** be cleared from the queue, requiring a re-entry for further transmission.	**Met**
512	5.2.2.3.3b.3c(3)	If a CALL ACK is received any time during transmit processing, the RCCOW **shall** be cleared from the queue.	**Not Applicable (Note)**
Note: This requirement is not correct in the MIL-STD. It is removed in MIL-STD-188-183A.			
513	5.2.2.3.3b.4(1)	RCCOW without a Precedence: This type of RCCOW has no priority to be transmitted and **shall** be processed at any time in which there are no priority messages to be transmitted.	**Met**
514	5.2.2.3.3b.4(2)	This type of RCCOW **shall** be as illustrated in figures 20-1, 20-3, 20-4, 20-6, and 20-14 [of the MIL-STD].	**Met**
515	5.2.2.3.3b.4(3)	This type of RCCOW **shall** have the lowest priority to be transmitted.	**Met**
516	5.2.2.3.3b.4(4)	It **shall** be pre-empted by all RCCOWS, except for another RCCOW without a precedence.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
517	5.2.2.3.3b.4(5)	The RCCOW **shall** be transmitted in the first frame that has not been accessed by a higher priority RCCOW.	**Met**
518	5.2.2.3.3b.4(6)	The RCCOW **shall** remain in queue for a random (less than 20) number of frames.	**Met**
519a	5.2.2.3.3b.4(7)	If the terminal does not receive a CALL ACK, it **shall** transmit the RCCOW again,…	**Met**
519b	5.2.2.3.3b.4(8)	…and **shall** retain the RCCOW in queue for a random (less than 20) number of frames.	**Met**
520	5.2.2.3.3b.4(9)	If the second transmission does not receive a CALL ACK, the RCCOW **shall** be cleared from the queue, requiring a re-entry for further transmission.	**Met**
521	5.2.2.3.3b.4(10)	If a CALL ACK is received any time during transmit processing, the RCCOW **shall** be cleared from the queue.	**Not Applicable (Note)**
Note: This requirement is not correct in the MIL-STD. It is removed in MIL-STD-188-183A.			
522	5.2.2.4	If the terminal is required by its performance specification to have DC-mode channel controller capability, the terminal **shall** also be capable of accepting inputs to compose and transmit the CCOW messages described in 5.2.2.4.1 through 5.2.2.4.7.7.	**Not Applicable (Note)**
Note: Optional requirement not implemented in the terminal.			
523a	5.2.2.4.1(1)	All terminals **shall** record in what frame they transmitted an RCCOW;…	**Met**
523b	5.2.2.4.1(2)	…exactly three frames later, they **shall** decode the CALL ACK field to find out what type of CALL ACK they have received.	**Met**
524	5.2.2.4.1(3)	If the terminal does not receive a CALL ACK, it **shall** proceed in accordance with 5.2.2.3.3.	**Met**
525	5.2.2.4.1(4)	Terminal retransmission of RCCOWS **shall** occur if proper acknowledgement is not received.	**Met**
526	5.2.2.4.1(5)	Terminal interpretation of these calls **shall** be as follows:	**Met**
527	5.2.2.4.1a	No Acknowledgement (Code 000). No call was received. The terminal **shall** retransmit the RCCOW.	**Met**
528	5.2.2.4.1b	Positive RCCOW CALL ACK (Codes 001 to 111). The RCCOW has been received. User number in the CCOW is the user whose RCCOW was received.	**Met**
529	5.2.2.4.3	All terminals with 16-bit addresses **shall** assume the MSB (bit 16) is a zero when receiving the Master Frame CCOW.	**Met**
530	5.2.2.4.7.1c(1)	If the frame format has not changed from the previous Master Frame, no terminal action **shall** be taken.	**Met**
531	5.2.2.4.7.1c(2)	If the frame format has changed, the terminal **shall** check its slot connects and disconnect any that existed in the changed segment(s) of the frame format.	**Met**
532	5.2.2.4.7.1h(1)	If the DC Flag is reset, the system **shall** operate in the AC mode.	**Met**
533	5.2.2.4.7.1h(2)	If the DC Flag is set, the system **shall** operate in the DC mode.	**Met**
534	5.2.2.4.7.2a	The terminal **shall** compare the Called Party number with the user ID number assigned to each of its port numbers for a match.	**Met**
535	5.2.2.4.7.2.1(1)	After an information request has been received by the terminal, it **shall** send an information report before sending any other RCCOW.	**Met**
536	5.2.2.4.7.2.1(2)	No other RCCOW messages **shall** be sent before the Information Report.	**Met**
537	5.2.2.4.7.2.2(1)	This Information Request message **shall** be used by the terminal to automatically disconnect a port that has been illegally transmitting on a slot for greater than 17 minutes.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
538	5.2.2.4.7.2.2(2)	If there is a match between the terminal's port number and the user ID number in the Called Party field of the Information Request, and the code is 4, the terminal **shall** automatically disconnect its port from the slot.	**Met**
539	5.2.2.4.7.3	When a terminal receives the Zeroize CCOW command, it **shall** zeroize the key storage memories of the KG and disconnect all slot connects.	**Met**
540	5.2.2.4.7.3a(1)	The terminal **shall** compare Called Party #1 field with Called Party #2 and with its terminal base address.	**Met**
541	5.2.2.4.7.3a(2)	If all three match, the command **shall** be executed by control signals that cause the KG to erase stored keys.	**Met**
542	5.2.2.4.7.3b	If it is not an exact copy of the Called Party #1 data field, the command **shall** not be executed.	**Met**
543	5.2.2.4.7.4a	The terminal action **shall** be either: a TS0 preparation, or Selection of new keys to prepare the KG.	**Met**
544	5.2.2.4.7.4b(1)	If the TS0 Flag is set, all terminals **shall** perform a TS0 at the frame count given in this CCOW.	**Met**
545	5.2.2.4.7.4b(2)	The result **shall** be that new variables are used to prepare the KG, and the frame count is reset to 24.	**Met**
546	5.2.2.4.7.4c(1)	If the Change KG Day Flag is set, all terminals **shall** change the KG day variable used to prepare the KG.	**Met**
547a	5.2.2.4.7.4c(2)	The change **shall** occur at the frame count given in this CCOW,…	**Met**
547b	5.2.2.4.7.4c(3)	…and the new KG day **shall** be the one given in this CCOW.	**Met**
548	5.2.2.4.7.4d(1)	If the Change Memory Flag is set, all terminal **shall** change the KG memory in use.	**Met**
549a	5.2.2.4.7.4d(2)	The change **shall** occur at the frame count given in this CCOW and…	**Met**
549b	5.2.2.4.7.4d(3)	...the new KG memory **shall** be that which is given in this CCOW.	**Met**
550	5.2.2.4.7.5a(1)	If the frame format has not changed in value, no terminal action **shall** be taken.	**Not Applicable (Note)**
551	5.2.2.4.7.5a(2)	If the frame format has changed, the terminal **shall** check its slot connects and **shall** disconnect any that existed in the changed segment(s) of the frame format.	
552	5.2.2.4.7.5b(1)	If the frame format has not changed in value, no terminal action **shall** be taken.	
553	5.2.2.4.7.5b(2)	If the frame format has changed, the terminal **shall** check its slot connects and **shall** disconnect any that existed in the changed segment(s) of the frame format.	
554	5.2.2.4.7.5c(1)	If the frame format has not changed in value, no terminal action **shall** be taken.	
555	5.2.2.4.7.5c(2)	If the frame format has changed, the terminal **shall** check its slot connects and **shall** disconnect any that existed in the changed segment(s) of the frame format.	
556	5.2.2.4.7.6a(1)	If the frame format has not changed in value, no terminal action **shall** be taken.	
557	5.2.2.4.7.6a(2)	If the frame format has changed, the terminal **shall** check its slot connects and **shall** disconnect any that existed in the changed segment(s) of the frame format.	
558	5.2.2.4.7.6b(1)	If the frame format has not changed in value, no terminal action **shall** be taken.	

Note: As directed by the JCS, requirement 2 (for DC CCOWs, #1, #2, and #3), and requirements 550 through 579 are applicable to DC mode frequency switching and are no longer required.

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
559	5.2.2.4.7.6b(2)	If the frame format has changed, the terminal **shall** check its slot connects and **shall** disconnect any that existed in the changed segment(s) of the frame format.	**Not Applicable (Note)**
560	5.2.2.4.7.6c(1)	If the frame format has not changed in value, no terminal action **shall** be taken.	
561	5.2.2.4.7.6c(2)	If the frame format has changed, the terminal **shall** check its slot connects and **shall** disconnect any that existed in the changed segment(s) of the frame format.	
562	5.2.2.4.7.6d(1)	The Channel #4 Frequency Code/KG Net Number **shall** contain a 5-bit frequency code for channel #4.	
563	5.2.2.4.7.6d(2)	It **shall** indicate the frequency code for channel #4.	
564	5.2.2.4.7.6e(1)	The Channel #5 Frequency Code/KG Net Number **shall** contain a 5-bit frequency code for channel #5.	
565	5.2.2.4.7.6e(2)	It **shall** indicate the frequency code for channel #5.	
566	5.2.2.4.7.6f(1)	The Channel #6 Frequency Code/KG Net Number **shall** contain a 5-bit frequency code for channel #6.	
567	5.2.2.4.7.6f(2)	It **shall** indicate the frequency code for channel #6.	
568	5.2.2.4.7.7a(1)	If the frame format has not changed in value, no terminal action **shall** be taken.	
569	5.2.2.4.7.7a(2)	If the frame format has changed, the terminal **shall** check its slot connects and **shall** disconnect any that existed in the changed segment(s) of the frame format.	
570	5.2.2.4.7.7b(1)	If the frame format has not changed in value, no terminal action **shall** be taken.	
571	5.2.2.4.7.7b(2)	If the frame format has changed, the terminal **shall** check its slot connects and **shall** disconnect any that existed in the changed segment(s) of the frame format.	
572	5.2.2.4.7.7c(1)	If the frame format has not changed in value, no terminal action **shall** be taken.	
573	5.2.2.4.7.7c(2)	If the frame format has changed, the terminal **shall** check its slot connects and **shall** disconnect any that existed in the changed segment(s) of the frame format.	
574	5.2.2.4.7.7d(1)	The Channel #7 Frequency Code/KG Net Number **shall** contain a 5-bit frequency code for channel #7.	
575	5.2.2.4.7.7d(2)	It **shall** indicate the frequency code for channel #7.	
576	5.2.2.4.7.7e(1)	The Channel #8 Frequency Code/KG Net Number **shall** contain a 5-bit frequency code for channel #8.	
577	5.2.2.4.7.7e(2)	It **shall** indicate the frequency code for channel #8.	
578	5.2.2.4.7.7f(1)	The Channel #9 Frequency Code/KG Net Number **shall** contain a 5-bit frequency code for channel #9.	
579	5.2.2.4.7.7f(2)	It **shall** indicate the frequency code for channel #9.	
Note: As directed by the JCS, requirement 2 (for DC CCOWs, #1, #2, and #3), and requirements 550 through 579 are applicable to DC mode frequency switching and are no longer required.			
580	5.2.2.5(1)	If the terminal is required by its equipment performance specification to use RCCOW Data Transfer messages, it **shall** also receive RCCOW messages.	**Met**
581	5.2.2.5(2)	Data field definitions **shall** be the same as those given for the AC mode, with the exception of those fields labeled “AC Mode Only.”	**Met**
582	5.2.2.5(3)	The AC mode fields **shall** be set to zeros for the DC mode.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
583	5.2.2.6	The following factors **shall** affect the choice of transmit time for RCCOW messages: Transmit enable, and Random RCCOW access.	**Not Testable (Note)**
584	5.2.2.6.1(1)	The terminal **shall** perform various checks to determine if RCCOW transmission is enabled.	
585	5.2.2.6.1(2)	If RCCOW transmission is enabled, the terminal **shall** progress into the random RCCOW access selection process.	
586	5.2.2.6.1(3)	The checks and the possible results are listed below in the order in which they **shall** occur:	
Note: General statements/definitions. Not testable.			
587	5.2.2.6.1a(1)	When the terminal fails to receive a CCOW, RCCOW transmission **shall** be inhibited in the next frame.	**Met**
588	5.2.2.6.1a(2)	RCCOW transmission **shall** also be inhibited if the terminal has not acquired range lock or if the terminal fails to properly decode a CCOW.	**Met**
589	5.2.2.6.1a.1(1)	When a terminal has acquired range and frame lock and has properly decoded CCOW, it **shall** be considered to be acquired.	**Not Testable (Note)**
590	5.2.2.6.1a.1(2)	The acquired mode of operation **shall** not preclude the missing of individual CCOWs.	
Note: General statements/definitions. Not testable.			
591	5.2.2.6.1a.1(3)	If this occurs, RCCOW transmission **shall** be inhibited until another CCOW is properly received.	**Met**
592	5.2.2.6.1a.1(4)	At this time, the RCCOW transmission **shall** again be enabled.	**Met**
593	5.2.2.6.1a.2	If every CCOW is missed for five minutes, the terminal **shall** reenter the acquisition process.	**Met**
594	5.2.2.6.1b(1)	RCCOW transmission **shall** be inhibited in any frame in which a terminal transmit inhibit condition occurs.	**Met**
595	5.2.2.6.1b(2)	The transmission inhibit condition **shall** be imposed by the terminal.	**Met**
596	5.2.2.6.2(1)	The terminal **shall** search its RCCOW queues to select an RCCOW for transmission.	**Met**
597	5.2.2.6.2(2)	Since neither the Data Transfer (figure 20-2 [of the MIL-STD]) RCCOW nor the Information Report (figure 20-6 [of the MIL-STD]) RCCOW has a higher priority of transmission than the other (except when the terminal is responding to an information request from the channel controller), whichever one appears in queue first **shall** be transmitted immediately.	**Met**
598	5.2.2.6.2(3)	The RCCOW **shall** remain in queue for a random (less than 20) number of frames after the first transmission.	**Met**
599	5.2.2.6.2(4)	If the terminal does not receive a CALL ACK, the RCCOW **shall** be transmitted again, still remaining in queue for a random (less than 20) number of frames.	**Met**
600	5.2.2.6.2(5)	If the second transmission does not receive a CALL ACK, the RCCOW **shall** be cleared from the queue, requiring a re-entry for further transmission.	**Met**
601	5.2.2.6.2(6)	If a CALL ACK is received any time during transmit processing, the RCCOW **shall** be cleared from the queue.	**Not Applicable (Note)**
Note: This requirement is not correct in the MIL-STD. It is removed in MIL-STD-188-183A.			
602	5.3.1(1)	To fully operate within the waveform, the terminal **shall** be capable of processing plain text (PT) orderwire messages in both the AC and DC modes.	**Met**
603	5.3.1(2)	In PT or unencrypted orderwire operation, the terminal **shall** process CCOWs and RCCOWS as described in 5.3.1.1 to 5.3.1.5.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
604	5.3.1.1	In plain text operation within the AC mode, the reception process **shall** be the same for both master frame CCOWs and all other CCOWs and **shall** be as follows:	**Met**
605	5.3.1.1d(1)	The CRC generation method **shall** be the IBM BSC CRC 16 Protocol (see 5.2.1.3).	**Met**
606	5.3.1.1d(2)	Calculation of the CRC **shall** begin with byte 1 and end with byte 13.	**Met**
607	5.3.1.1d(3)	The generated 2 byte CRC **shall** be compared with byte 5 (high order CRC byte) and byte 6 (low order CRC byte) stored in step b, above.	**Met**
608	5.3.1.1e(1)	If the calculated CRC and the stored CRC match, reception of the CCOW **shall** be considered successful, and the CCOW messages data bytes **shall** be considered valid for further processing by the terminal.	**Met**
609	5.3.1.1e(2)	The terminal **shall** consider CCOW reception to be failed, and the CCOW message data bytes **shall** be discarded, if the calculated CRC does not match the stored CRC message parity bytes.	**Met**
610	5.3.1.2(1)	For reception of the Master Frame CCOW, the processes described in paragraph 5.3.1.1 **shall** be adhered to.	**Met**
611	5.3.1.2(2)	This process **shall** be supplemented by reading the KG ID field in bytes 12 and 13 and separately storing this number in terminal memory as the channel controller ID number.	**Met**
612	5.3.1.3	In AC or DC modes, in plain text operation, the terminal **shall** prepare RCCOW messages before encoding, interleaving, and modulating, as follows:	**Met**
613	5.3.1.3b(1)	The CRC generation method **shall** be the IBM BSC CRC 16 Protocol (see 5.2.1.3).	**Met**
614	5.3.1.3b(2)	Calculation of the CRC **shall** begin with byte 1 and end with byte 13.	**Met**
615	5.3.1.3b(3)	The generated 2 byte CRC **shall** be placed into RCCOW message bytes 12 (high order CRC byte) and 13 (low order CRC byte).	**Met**
616	5.3.1.4(1)	If a terminal is required by its performance specification to be DC mode channel controller, it **shall** prepare PT CCOW messages to be transmitted for Master Frame CCOWs and all other DC mode CCOWs.	**Not Applicable (Note)**
617	5.3.1.4(2)	The process **shall** be as follows:	
618	5.3.1.4d	The generated 2 byte CRC **shall** be placed into CCOW message bytes 5 (high order CRC byte) and 6 (low order CRC byte).	
Note: Optional requirements not implemented in the terminal.			
619	5.3.1.5	If the terminal is required by its performance specification to be a DC mode channel controller, or required to receive Data Transfer RCCOW messages, it **shall** process PT RCCOW messages as follows:	**Met**
620	5.3.1.5d	The generated 2 byte CRC **shall** be compared with byte 12 (high order CRC byte) and byte 13 (low order CRC byte), stored in step b, above.	**Met**
621	5.3.1.5e(1)	If the calculated CRC and the stored CRC match, reception of the RCCOW **shall** be considered successful, and the RCCOW messages data bytes **shall** be considered valid for further processing by the terminal.	**Met**
622	5.3.1.5e(2)	The terminal **shall** consider RCCOW reception to be failed, and the RCCOW message data bytes **shall** be discarded, if the calculated CRC does not match the stored CRC message parity bytes.	**Met**
623	5.3.2(1)	To fully operate within the waveform, the terminal **shall** be capable of processing encrypted orderwire messages in both the AC and DC modes.	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
624	5.3.2(2)	Orderwire encryption/decryption **shall** be performed using the COMSEC/TRANSEC Integrated Circuit (CTIC) or an alternate NSA approved device that is cryptographically and functionally compatible with the CTIC implementing KGV-11 as specified in NSA specifications 88-4A and 87-1.	**Met**
625	5.3.2(3)	Hardware implementation of the terminal **shall** include provisions for future implementation of Over the Air Rekeying (OTAR) for the orderwire.	**Not Tested (Note)**
Note: OTAR Channel Control Orderwire (CCOW) messages have not been implemented in the Channel Controller Therefore, testing could not be performed.			
626	5.3.2(4)	In encrypted or cipher text (CT) orderwire operation, the terminal **shall** process CCOWs and RCCOWS as described in 5.3.2.1 to 5.3.2.4.	**Met**
627	5.3.2.1.1	The reception process for encrypted Master Frame CCOWs **shall** be as follows:	**Met**
628	5.3.2.1.1i(1)	The CRC generation method **shall** be the IBM BSC CRC 16 Protocol (see 5.2.1.3).	**Met**
629	5.3.2.1.1i(2)	The generated 2 byte CRC **shall** be compared with byte 5 (high order CRC byte) and byte 6 (low order CRC byte), which are stored from g, above, in the decrypted CCOW message.	**Met**
630	5.3.2.1.1j(1)	If the calculated CRC and the stored CRC match, reception of the CCOW **shall** be considered successful, and the CCOW messages data bytes **shall** be considered valid for further processing by the terminal.	**Met**
631	5.3.2.1.1j(2)	The terminal **shall** consider CCOW reception to be failed, and the CCOW message data bytes **shall** be discarded, if the calculated CRC does not match the stored CRC message parity bytes.	**Met**
632	5.3.2.1.2	The reception process for all encrypted CCOWs other than Master Frame CCOWs **shall** be as follows:	**Met**
633	5.3.2.1.2f(1)	The CRC generation method **shall** be the IBM BSC CRC 16 Protocol (see 5.2.1.3).	**Met**
634	5.3.2.1.2f(2)	The generated 2 byte CRC **shall** be compared with byte 5 (high order CRC byte) and byte 6 (low order CRC byte), which are stored from g, above, in the decrypted CCOW message.	**Met**
635	5.3.2.1.2g(1)	If the calculated CRC and the stored CRC match, reception of the CCOW **shall** be considered successful, and the CCOW messages data bytes **shall** be considered valid for further processing by the terminal.	**Met**
636	5.3.2.1.2g(2)	The terminal **shall** consider CCOW reception to be failed, and the CCOW message data bytes **shall** be discarded, if the calculated CRC does not match the stored CRC message parity bytes.	**Met**
637	5.3.2.2	In AC or DC mode, in encrypted operation, the terminal **shall** prepare RCCOW messages before encoding, interleaving, and modulating, as follows:	**Met**
638	5.3.2.2b(1)	The CRC generation method **shall** be the IBM BSC CRC 16 Protocol (see 5.2.1.3).	**Met**
639	5.3.2.2b(2)	The generated 2 byte CRC **shall** be placed into RCCOW message bytes 12 (high order CRC byte) and 13 (low order CRC byte).	**Met**
640	5.3.2.2d	The serial data stream of these bytes presented to the KG for encryption **shall** begin with byte 3, MSB, and end with byte 13, LSB.	**Met**
641	5.3.2.3	If the terminal is required by its performance specification to be a DC mode channel controller, it **shall** prepare encrypted CCOW messages to be transmitted for both Master Frame CCOWs and all other Non-master Frame DC mode CCOWs.	**Not Applicable (Note)**
Note: Optional requirements not implemented in the terminal.			

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
642	5.3.2.3.1	The sequence of events to encrypt CCOW Master Frame data **shall** be as follows:	**Not Applicable (Note)**
643	5.3.2.3.1b(1)	The CRC generation method **shall** be the IBM BSC CRC 16 Protocol (see 5.2.1.3).	
644	5.3.2.3.1b(2)	The generated 2 byte CRC **shall** be placed into CCOW message bytes 5 (high order CRC byte), and 6 (low order CRC byte).	
645	5.3.2.3.2	The sequence of events used to encrypt CCOW Non-master Frame data **shall** be as follows:	
646	5.3.2.3.2b(1)	The CRC generation method **shall** be the IBM BSC CRC 16 Protocol (see 5.2.1.3).	
647	5.3.2.3.2b(2)	The generated 2 byte CRC **shall** be placed into CCOW message bytes 5 (high order CRC byte), and 6 (low order CRC byte).	
Note: Optional requirements not implemented in the terminal.			
648	5.3.2.4	If the terminal is required by its performance specification to be a DC mode channel controller, or required to receive Data Transfer RCCOW messages it **shall** process encrypted RCCOW messages received as follows:	**Met**
649	5.3.2.4g(1)	The CRC generation method **shall** be the IBM BSC CRC 16 Protocol (see 5.2.1.3).	**Met**
650	5.3.2.4g(2)	The generated 2 byte CRC **shall** be compared with byte 12 (high order CRC byte) and byte 13 (low order CRC byte), which are stored from e, above.	**Met**
651	5.3.2.4h(1)	If the calculated CRC and the stored CRC match, reception of the RCCOW **shall** be considered successful, and the RCCOW messages data bytes **shall** be considered valid for further processing by the terminal.	**Met**
652	5.3.2.4h(2)	The terminal **shall** consider RCCOW reception to be failed, and the RCCOW message data bytes **shall** be discarded, if the calculated CRC does not match the stored CRC message parity bytes.	**Met**
653	5.4.1(1)	The FEC coding used **shall** be convolutional, with interleaving, to ensure errors are random.	**Met**
654	5.4.1(2)	The code rates used **shall** be 1) Rate one-half (R=1/2) or 2) Rate three-fourths (R=3/4).	**Met**
655	5.4.1(3)	The constraint lengths for these codes **shall** be k=7 and k=9 for the rate 1/2 and rate 3/4 codes respectively.	**Met**
656	5.4.1(4)	CCOW and RCCOW transmission **shall** use rate 1/2, k = 7 FEC coding.	**Met**
657	5.4.1(5)	Range and Link test transmissions **shall** not use FEC coding.	**Not Testable (Note)**
Note: General statement/definition. Not testable.			
658	5.4.1(6)	The code employed for user communications **shall** be determined by the transmission time slot, as defined in figures 3 through 5 [of the MIL-STD].	**Met**
659	5.4.2(1)	The code tap positions **shall** be as follows: Rate = 1/2, k = 7 P1 1111001 P2 1011011 Rate = 3/4, k = 9 P1 100111010 P2 010001101 P3 001001011 P4 111110100	**Met**
660	5.4.2(2)	The encoder tap connections **shall** be as shown in figure 9 [of the MIL-STD].	**Met**

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
661	5.4.3(1)	The interleaver **shall** use a random interleaving method with a block depth of 224 symbols.	**Met**
662	5.4.3(2)	The block substructure **shall** consist of 2 independently constructed blocks of 112 symbols each, which are used in sequence.	**Met**
663	5.4.3(3)	A hybrid random scatter **shall** be incorporated in each block of 112 symbols.	**Met**
664	5.4.3(4)	The interleaver sequence **shall** be as shown in table XI (page 116 [of the MIL-STD]).	**Met**
665a	5.5.1(1)	The modulation **shall** be interoperable with binary phase-shift keying (BPSK) and differentially encoded quadrature phase-shift keying (DEQPSK),…	**Met**
665b	5.5.1(2)	…and **shall** have spectral containment equal to or better than BPSK and DEQPSK, respectively.	**Met**
666	5.5.2	The terminal **shall** burst at 9,600 or 19,200 sps using BPSK modulation and 32,000 sps using DEQPSK modulation.	**Met**
667	5.5.4	The data bit mapping in the modulation process of DEQPSK waveform **shall** be the following Gray code mapping convention: (see page 117).	**Met**
668	5.5.5.1	The modulating signal timing jitter requirement **shall** be less than 2 percent of a data bit period, or 10 microseconds, whichever is less.	**Met**
669	5.5.5.2	The maximum allowable error in the data rate **shall** be 1 part in 1000000 (1 part per million (ppm)).	**Met**
670	5.6.1	The uplink frequency of any transmission, as received at the satellite, **shall** be within 240 Hz of the allocated uplink frequency, provided a and b (below) are both true: a. The CCOW transmission from the satellite is within 30 Hz of the allocated downlink frequency, and b. The satellite inclination angle is equal to or less than 10 degrees.	**Met**
671	5.6.2(1)	The terminal **shall** be capable of receiving downlink signals within 310 Hz of the allocated center frequency.	**Met**
672	5.6.2(2)	The frequency accuracy requirement **shall** include inaccuracies caused by Doppler and inaccuracies caused by frequency-standard, frequency measurement, and frequency-setting errors.	**Not Testable (Note)**
673	5.6.2(3)	Downlink frequency offset **shall** not exceed uplink frequency offset from the transponder center frequency plus the satellite transponder translation error.	
Note: General statements/definitions. Not testable.			
674	5.6.3	The probability of a missed acquisition of any burst **shall** not degrade the terminal's specified BER performance by more than a factor of two.	**Met**
675	5.7.1	Voice digitization and security **shall** be as follows:	**Met**
676	5.7.1(1)	For joint operations, secure voice at 2400 bps **shall** be interoperable with the digitization and encryption techniques used in the Advanced Narrowband Digital Voice Terminal (ANDVT), application 3 (see MIL-C-28883A).	**Met**
677	5.7.1(2)	Secure voice at 4800 bps **shall** be interoperable with the digitization techniques used in the Code Excited Linear Prediction (CELP) (FED STD 1016) and encryption techniques used by the KG-84A (NSA NO. 82-2B).	**Not Applicable (Note)**
Note: Optional requirements not implemented in the terminal.			

JITC REQ #	MIL-STD Paragraph	REQUIREMENT DESCRIPTION	STATUS
678	5.7.1(3)	Secure voice at 16000 bps **shall** be interoperable with the digitization techniques using Continuous Variable Slope Delta (CVSD) modulation and encryption techniques used by the VINSON (CSESD 14).	**Met**
679	5.7.2(1)	For joint operations, data encryption **shall** be interoperable with KYV-5 and KG-84A encryption devices.	**Met**
680	5.7.2(2)	Terminals that embed COMSEC devices **shall** support all data rates specified in the MIL STD for communications over the DAMA channel.	**Met**

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